CA2ALEN40
74A43
V.2 c.2

CA2 ALEN 40 1974A43
Alberta Industrial Water Use Survey 197
2, V.1 and 2. June 1974. 2,c.2
3 3398 00607 1038

LIBRARY
VAULT 19

LEGISLATURE LIBRARY
JAN 15 1975
EDMONTON

Alberta

ENVIRONMENT

ALBERTA INDUSTRIAL WATER USE SURVEY

1972

VOLUME II

Environmental Planning and Research Service

Digitized by the Internet Archive
in 2026 with funding from
Legislative Assembly of Alberta - Alberta Legislature Library

LEGISLATURE LIBRARY
JAN 15 1975
EDMONTON
C2

Prepared By

ALBERTA ENVIRONMENT

ENVIRONMENTAL PLANNING DIVISION

ALBERTA INDUSTRIAL WATER USE SURVEY

1972

VOLUME II

OCTOBER, 1974

ENVIRONMENT
Environmental Planning Division
403/429-5189
Telex 037-2006 TWX 610-831-2636
10405 - 100th Avenue
Edmonton, Alberta, Canada
T5J 0Z6

November 20, 1974

Hon. W. J. Yurko, P. Eng.
Minister
Alberta Environment

Dear Sir:

We have the pleasure of transmitting to you these two reports entitled *Alberta Industrial Water Use Survey, 1972 Volume I and Volume II*. These represent the culmination of our work on this project.

The purpose of the reports is to establish an industrial water use data base. More specifically it is the survey responses of all major industrial water users in this province, dealing with all the details of their water use.

This survey is the combined effort of many individuals past and present in the Environmental Demand and Problem Analysis Branch, notably; C. Primus, L. Barber, R. Lefrancois, A. Seifried, F. Schulte, G. VanWachem. The computer analysis was done by W. Krywolt and T. Charters from the General Services Branch.

Respectfully yours,

E. E. Ballantyne, D.V.M.
Deputy Minister
Alberta Environment

R. E. Bailey, P. Eng.
Assistant Deputy Minister
Environmental Planning and Research Service

T. V. Mussivand, P. Eng.
Director
Environmental Planning Division

Digitized by the Internet Archive
in 2026 with funding from
University of Alberta Library

https://archive.org/details/ableg_33398006071038

ACKNOWLEDGEMENTS

This second volume, as was the first, is the result of the efforts of many. The computerization of the collected data was done by the General Services Division, Alberta Environment.

The list of companies provided by the Alberta Bureau of Statistics and used for the first volume was also used for this second one.

The staff, past and present, of the Environmental Demand and Problem Analysis Branch, Alberta Environment, were the major contributors and organizers.

Acknowledgements are due to the Resource Economics Branch, Alberta Agriculture.

Finally, thanks are also due to the many firms and individuals who completed and returned the original questionnaires.

ABSTRACT

This report is the second volume of the *Industrial Water Use Survey* done by Alberta Environment. In volume one, the major aims of the survey were stated as being to update existing information, to discern patterns of water use among industries over space and time, and to provide additional information on which to base specific policy decisions concerning present and future water requirements.

This second volume also follows these aims and incorporates data which could not be reported in volume one due to needed statistical analysis. This analysis in the form of a response summary, is incorporated to provide more meaning to each table.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS ii

ABSTRACT iii

INTRODUCTION 1

THE RESPONSE SUMMARIES 2

EXPLANATION OF COMPUTER CODES 4

INTAKE BY PURPOSE 6

RECIRCULATION BY PURPOSE 32

MONTHLY TOTALS 59

YEARLY TOTALS 85

INTAKE WATER TREATED 111

RECIRCULATED WATER TREATED 138

DISCHARGED WATER TREATED 164

APPENDIX I - DETAILED WATER USE QUESTIONNAIRE 190

APPENDIX II - STANDARD INDUSTRIAL CLASSIFICATION CODES 195

LIST OF TABLES

Table No.		Page No.
1	INTAKE BY PURPOSE - BY S.I.C.	7
2	INTAKE BY PURPOSE BY S.I.C. - RESPONSE SUMMARY	13
3	INTAKE BY PURPOSE - BY RIVER BASIN	15
4	INTAKE BY PURPOSE - BY RIVER BASIN - RESPONSE SUMMARY	26
5	WATER RECIRCULATION BY PURPOSE - BY S.I.C.	34
6	WATER RECIRCULATION BY PURPOSE - BY S.I.C. - RESPONSE SUMMARY	40
7	WATER RECIRCULATION BY PURPOSE - BY RIVER BASIN	42
8	WATER RECIRCULATION BY PURPOSE - BY RIVER BASIN - RESPONSE SUMMARY	53

9	MONTHLY TOTALS - BY S.I.C.	61
10	MONTHLY TOTALS - BY S.I.C. - RESPONSE SUMMARY	69
11	MONTHLY TOTALS - BY RIVER BASIN	71
12	MONTHLY TOTALS - BY RIVER BASIN - RESPONSE SUMMARY	79
13	YEARLY TOTALS - BY S.I.C.	87
14	YEARLY TOTALS - BY S.I.C. - RESPONSE SUMMARY	95
15	YEARLY TOTALS - BY RIVER BASIN - RESPONSE SUMMARY	99
16	INTAKE WATER TREATED - BY METHOD OF TREATMENT - BY S.I.C.	113
17	INTAKE WATER TREATED - BY METHOD OF TREATMENT - BY S.I.C. - RESPONSE SUMMARY	119
18	INTAKE WATER TREATED - BY METHOD OF TREATMENT - BY RIVER BASIN	121
19	INTAKE WATER TREATED - BY METHOD OF TREATMENT - BY RIVER BASIN	132
20	RECIRCULATED WATER TREATED - BY METHOD OF TREATMENT - BY S.I.C.	139
21	RECIRCULATED WATER TREATED - BY METHOD OF TREATMENT - BY S.I.C. - RESPONSE SUMMARY	145
22	RECIRCULATED WATER TREATED - BY METHOD OF TREATMENT - BY RIVER BASIN	147
23	RECIRCULATE WATER TREATED - BY METHOD OF TREATMENT - BY RIVER BASIN - RESPONSE SUMMARY	158
24	DISCHARGED WATER TREATED - BY METHOD OF TREATMENT - BY S.I.C.	165
25	DISCHARGED WATER TREATED - BY METHOD OF TREATMENT - BY S.I.C. - RESPONSE SUMMARY	171
26	DISCHARGED WATER TREATED - BY METHOD OF TREATMENT - BY RIVER BASIN	173
27	DISCHARGED WATER TREATED - BY METHOD OF TREATMENT - BY RIVER BASIN - RESPONSE SUMMARY	184

INTRODUCTION

This volume of the *Industrial Water Use Survey* reports information omitted from the first volume due to the need for statistical analysis of the data used. The data used is the remainder of the information from the long questionnaire. The final result is therefore a complete printout of available data. The main difference between volumes one and two lies in the reporting of data. This latter volume reports data from those questions which were generally not answered as well as those covered in volume one. Many responses were rough estimates or guesses. Because of this fact, tables have been included in this report to allow for the incorporation of data relating to the statistical significance of the analysed responses.

Tables in this volume report water intake by source, recirculation or reuse by purpose, monthly intake and discharge figures, yearly intake and discharge figures, and treatment of intake, discharge, and/or recirculated water. Most tables are broken down by river basin and industrial classification. As well, response summaries are provided for each report.

THE RESPONSE SUMMARIES

Some responses to various questions of the survey were unusable. This was often due to one, or a combination of more than one, of the following reasons:

(a) guesswork in answering

(b) rough estimates of quantities

(c) misinterpretation of questions and their relationships to each other.

Many faults were direct results of lack of metering. Also, many firms did not have records enabling them to answer all questionnaire items accurately; several items were therefore estimated, answered partially, or not answered at all. Most of the faults and guesswork were identified and removed, and every effort has been made to use only reliable data in the final tables.

Other than the above-mentioned faults, many questionnaire items were left blank or only answered partially. For example, a firm may have treated some of its intake water, but the quantity treated may not have been known. Thus, treatment of intake water would have been indicated but volume figures would not have been incorporated into the tables for that firm.

Due to the above-mentioned problems, a response summary was prepared for each table generated. These summaries would indicate the types of responses possible for each questionnaire item, and the number of questionnaires applicable to each type of response. This summary would indicate, for the above example, that water had been treated but that no quantities had been provided. Thus, figures in the respective table could be considered knowing that some quantities had not been included due to lack of figures.

The different responses incorporated into the summaries are explained on a question by question basis in the report.

For any problems in interpretation of the following items, refer to Appendix 1, the long questionnaire which forms the basis of the survey. All the following "items" appear in the questionnaire with the same number.

The response summary attempts to explain any other problems of interpretation which may occur. "Blank" responses have been identified to distinguish them from reported "zero" responses. Thus, questions with blank responses can be disregarded and figures obtained can be more closely correlated to the questionnaires to which they correspond. The result is a more accurate survey of industrial water use due to the statistical qualifications of the data.

For each response summary table, an example will be given using the Standard Industrial Classification of "Mineral Fuels," code number 0402.

EXPLANATION OF COMPUTER CODES

General

TOTL QUES = TOTAL QUESTIONNAIRES

BLNK = BLANK

Item II - Intake by Purpose - Tables 1, 2, 3, 4

CORR = ANSWERED AND ASSUMED TO BE CORRECT

PRTL = PARTIAL

Item III - Recirculation or Reuse by Purpose - Tables 5, 6, 7, 8

YES & CORR = YES AND ANSWERED CORRECTLY

NO RECN = NO RECIRCULATION

YES & TOTL = YES AND TOTAL ONLY

YES & BKDN = YES AND BREAKDOWN ONLY

YES & BLNK = YES AND REMAINDER BLANK

Item V - Monthly Totals - Tables 9, 10, 11, 12

INTK CORR = ANSWERED AND ASSUMED TO BE CORRECT FOR INTAKE

INTK BLNK = NO FIGURES PROVIDED FOR INTAKE

INTK PRTL = PARTIAL DATA FOR INTAKE

INTK SAME = INTAKE IS THE SAME FOR EACH MONTH

DIS CORR = ANSWERED AND ASSUMED TO BE CORRECT FOR DISCHARGE

DIS BLNK = NO FIGURES PROVIDED FOR DISCHARGE

DIS PRTL = PARTIAL DATA FOR DISCHARGE

DIS SAME = DISCHARGE IS THE SAME FOR EACH MONTH

IN = DIS = INTAKE AND DISCHARGE ARE EQUAL FOR EVERY MONTH

Item VI Yearly Totals - Tables 13, 14, 15

CORR = ANSWERED AND ASSUMED TO BE CORRECT

68-I = INTAKE FOR 1968

Item VI Yearly Totals (continued)

70-D = DISCHARGE FOR 1970

INTK SAME = INTAKE SAME FOR ALL YEARS

INTK DIF = INTAKE DIFFERENT FOR ALL YEARS

DIS SAME = DISCHARGE SAME FOR ALL YEARS

DIS DIF = DISCHARGE DIFFERENT FOR ALL YEARS

68 I=D = INTAKE EQUALS DISCHARGE FOR 1968

Item VII Water Treated by Method of Treatment

A. Intake Water Treated - Tables 16, 17, 18, 19

NO TRMT = NO TREATMENT OF INTAKE WATER

YES & CORR = YES AND ANSWERED CORRECTLY

YES & TOTL = YES AND TOTAL ONLY

YES & BKDN = YES AND BREAKDOWN ONLY

YES & BLNK = YES AND REMAINDER BLANK

YES & MCPL = YES AND FROM MUNICIPAL WATER SUPPLY SYSTEM

MCPL SUPL = WATER FROM MUNICIPAL WATER SUPPLY SYSTEM.

VII B. Treatment of Water Recirculated - Tables 20, 21, 22, 23

- same codes as in VII A, except applying to recirculated water instead of intake water.

VII C. Treatment of Discharged Water - Tables 24, 25, 26, 27

- same codes as in VII A, except applying to discharged water instead of intake water.

Item II Intake by Purpose - Tables 1, 2, 3, 4.

Intake by purpose was calculated in order to show the uses to which intake water was put. This item was generally well answered, as is shown by the response summary. The following types of responses to this item were grouped:

(a) CORRECT - applies to all questionnaires which were answered and assumed, from the information provided, to be correct.

(b) BLANK - applies to questionnaires which were not answered at all, i.e. left blank.

(c) PARTIAL - applies to those responses in which the figures provided in the breakdown (lines 1 to 6) do not correspond to the total. In most of these cases there was either no breakdown of a given total, or no total and a partial breakdown.

Discrepancies between the totals and breakdowns are caused either by rounding of data used or by the fact that in some cases only totals were reported.

In our example of mineral fuels (S.I.C. Code 0402), for Table 2, the total number of questionnaires received was 56, of which 55 were answered correctly, and one was left blank. There were no questionnaires which were only partially answered.

Table 1
WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

04 MINES, QUARRIES & OIL WELLS

STAND'D IND CLS CODE MIN	STANDARD INDUSTRIAL CLASSIFICATION	TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CON-DITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
0402	MINERAL FUELS							
0402-061	COAL MINES	528	491		10	10		15
0402-064	CRUDE PETR. & NATURAL GAS IND.	5004	135	4		2834	439	1468
MAJOR	TOTAL	5532	626	4	10	2844	439	1483
0403	NON-METAL MINING (EXCEPT COAL)							
0403-079	MISC. NONMETAL MINES	1580	1571	1			5	2
MAJOR	TOTAL	1580	1571	1			5	2
0404	QUARRIES AND SAND PITS							
0404-087	SAND PITS OR QUARRIES	6240	3539	770		1000	920	10
MAJOR	TOTAL	6240	3539	770		1000	920	10
DIVISION	TOTAL	13352	5736	775	10	3844	1364	1495

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

05 MANUFACTURING INDUSTRIES

STAND'D IND CLS CODE MIN	STANDARD INDUSTRIAL CLASSIFICATION	TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CON-DITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
0501	FOOD AND BEVERAGES							
0501-101	MEAT AND POULTRY PRODUCTS	2390	1489	1	15	206	110	551
0501-103	FRUIT AND VEG PROCESSING PLANT	252	157			45	13	32
0501-104	DAIRY PRODUCTS	260	97	1	1	35	8	105
0501-105	FLOUR & BREAKFAST CEREAL PROD	1	1					
0501-106	FEED INDUSTRY	158	49			3	26	78
0501-107	BAKERY PRODUCTS	12	1			6		2
0501-108	MISCELLANEOUS FOOD INDUSTRIES	1295	392	78		785	23	12
0501-109	BEVERAGE INDUSTRIES	1127	484		23	231	53	307
MAJOR	TOTAL	5495	2670	80	39	1311	233	1087
0503	RUBBER AND PLASTICS PRODUCTS							
0503-162	RUBBER PRODUCTS INDUSTRIES	67	60				5	1
0503-165	PLASTIC FABRICATING INDUSTRY	7	5			2		
MAJOR	TOTAL	74	65			2	5	1
0504	LEATHER INDUSTRIES							
0504-172	LEATHER TANNERIES	44	44					
MAJOR	TOTAL	44	44					
0505	TEXTILES INDUSTRIES							
0505-183	MANMADE FIBRE,YARN,CLOTH MILLS	3	1		1			
MAJOR	TOTAL	3	1		1			
0507	CLOTHING INDUSTRIES							
0507-249	MISC CLOTHING IND	3						3
MAJOR	TOTAL	3						3
0508	WOOD INDUSTRIES							
0508-251	SAWMILLS,PLANING MILLS,SHINGLE	24	6				16	1
0508-259	MISCELLANEOUS WOOD INDUSTRIES	10					9	8
MAJOR	TOTAL	34	6				25	9
0509	FURNITURE & FIXTURE INDUSTRIES							
0509-264	OFFICE FURNITURE MANUF							
MAJOR	TOTAL							

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

05 MANUFACTURING INDUSTRIES

STAND'D IND CLS CODE MIN	STANDARD INDUSTRIAL CLASSIFICATION	TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CON-DITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
0510	PAPER & ALLIED INDUSTRIES							
0510-271	PULP AND PAPER MILLS	7917	7771				146	
0510-272	ASPHALT ROOFING MANUFACTURERS	193	165			17	7	1
0510-273	PAPER BOX & BAG MANUF	16	1			7		3
0510-274	MISCELLANEOUS PAPER CONVERTERS	1						
MAJOR	TOTAL	8127	7937			24	153	4
0511	PRINT, PUBLISH, & ALLIED INDUS							
0511-289	PUBLISHING & PRINTING	10	2		1			4
MAJOR	TOTAL	10	2		1			4
0512	PRIMARY METAL INDUSTRIES							
0512-291	IRON & STEEL MILLS	1						
0512-292	STEEL PIPE AND TUBE MILLS	48	23			18		5
0512-294	IRON FOUNDRIES	34				24		7
0512-295	SMELTING AND REFINING	860	283	61		347	122	44
0512-296	ALUMINUM ROLLING,CASTING	35	21			10	1	1
0512-298	METAL ROLLING,CASTING,EXTRUDIN	1				1		
MAJOR	TOTAL	979	327	61		400	123	57
0513	METAL FABRICATING INDUSTRIES							
0513-302	FABRICATED STRUCT. METAL INDUS	310				71		239
0513-304	METAL STAMPING,PRESSING INDUST	1	1					
0513-305	WIRE PRODUCTS MANUFACTURING	4				4		
0513-309	MISC. METAL FABRICATING INDUST	2				1		1
MAJOR	TOTAL	317	1			76		240
0514	MACHINERY INDUSTRIES							
0514-315	MISC MACHINERY&EQUIP MANUF	23						
MAJOR	TOTAL	23						
0515	TRANSPORTATION EQUIP. INDUSTR							
0515-324	TRUCK BODY & TRAILER MANUF	1						1
0515-325	MOTOR VEHICLE PARTS & ACCES-MA	8				8		
0515-326	RAILROAD ROLLING STOCK IND	93	5				24	62
MAJOR	TOTAL	102	5			8	24	63
0516	ELECTRICAL PRODUCTS INDUSTRIES							

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

05 MANUFACTURING INDUSTRIES

STAND'D IND CLS CODE MIN	STANDARD INDUSTRIAL CLASSIFICATION	TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CON-DITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
0516	ELECTRICAL PRODUCTS INDUSTRIES							
0516-338	MANUF OF ELECTRICAL CABE &WIRE	27	27					
0516-339	MANUF.OF MISC. ELECTRICAL PROD	53	48			2		1
MAJOR	TOTAL	80	75			2		1
0517	NON-METALLIC MINERAL PRODUCTS							
0517-351	CLAY PRODUCTS MANUFACTURERS	11	2			6		
0517-352	CEMENT MANUFACTURERS	234	176			45		12
0517-354	CONCRETE PRODUCTS MANUFACTURER	90	69			1	9	3
0517-355	READYMIX CONCRETE MANUFACTURER	495	483				1	3
0517-356	GLASS AND GLASS PRODUCTS	37	2			21		12
0517-358	LIME MANUFACTURERS	109	86			21		2
0517-359	MISC. NON-METALLIC MINERAL PRO	17	11				1	5
MAJOR	TOTAL	993	834			94	11	37
0518	PETROLEUM AND COAL PRODUCTS							
0518-365	PETROLEUM REFINERIES	8384	1944	22		5425	952	37
0518-369	MISC PETROLEUM & COAL PRODUCTS	776	138			579	53	6
MAJOR	TOTAL	9160	2082	22		6004	1005	43
0519	CHEMICAL & CHEMICAL PRODUCTS							
0519-372	MIXED FERTILIZERS	14100	250			13336	496	65
0519-373	PLASTICS & SYNTHETIC RESINS	156	122		5	14	7	8
0519-378	INDUSTRIAL CHEMICALS	4421	2646			1188	489	95
0519-379	MISC. CHEMICAL INDUSTRIES	428				336	22	65
MAJOR	TOTAL	19105	3018		5	14874	1014	233
0520	MISC. MANUFACTURING IND.							
0520-399	MISC. MANUFACT. INDUSTRIES NES	49	3			44		2
MAJOR	TOTAL	49	3			44		2
DIVISION	TOTAL	44598	17070	163	46	22839	2593	1784

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

07 TRANS., COMM. & OTHER UTILITIE

STAND'D IND CLS CODE MIN	STANDARD INDUSTRIAL CLASSIFICATION	TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CON- DITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
0704	ELEC. POWER, GAS & WATER UTILI							
0704-572	THERMAL ELECTRIC POWER	297545	45360	289520		2099	4017	1902
MAJOR	TOTAL	297545	45360	289520		2099	4017	1902
DIVISION	TOTAL	297545	45360	289520		2099	4017	1902

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

STAND'D IND CLS CODE MIN	STANDARD INDUSTRIAL CLASSIFICATION	TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CON-DITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
GRAND	TOTAL	355495	58166	290458	56	28782	7974	5181

Table 2
WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
INTAKE BY PURPOSE
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	CORR	BLNK	PRTL
04	MINES, QUARRIES & OIL WELLS				
0402	MINERAL FUELS	56	55	1	
0403	NON-METAL MINING (EXCEPT COAL)	1	1		
0404	QUARRIES AND SAND PITS	6	6		
DIVISION TOTAL		63	62	1	
05	MANUFACTURING INDUSTRIES				
0501	FOOD AND BEVERAGES	87	76	9	2
0503	RUBBER AND PLASTICS PRODUCTS	5	5		
0504	LEATHER INDUSTRIES	1	1		
0505	TEXTILES INDUSTRIES	1	1		
0507	CLOTHING INDUSTRIES	1	1		
0508	WOOD INDUSTRIES	5	5		
0509	FURNITURE & FIXTURE INDUSTRIES	1		1	
0510	PAPER & ALLIED INDUSTRIES	10	6	3	1
0511	PRINT, PUBLISH, & ALLIED INDUS	2	1	1	
0512	PRIMARY METAL INDUSTRIES	12	12		
0513	METAL FABRICATING INDUSTRIES	10	10		
0514	MACHINERY INDUSTRIES	1		1	
0515	TRANSPORTATION EQUIP. INDUSTR	4	4		
0516	ELECTRICAL PRODUCTS INDUSTRIES	5	4	1	
0517	NON-METALLIC MINERAL PRODUCTS	46	44	2	
0518	PETROLEUM AND COAL PRODUCTS	9	9		
0519	CHEMICAL & CHEMICAL PRODUCTS	22	20	2	
0520	MISC. MANUFACTURING IND.	1	1		
DIVISION TOTAL		223	200	20	3
07	TRANS., COMM. & OTHER UTILITIE				
0702	ELEC. POWER, GAS & WATER UTILI	9	9		
DIVISION TOTAL		9	9		

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
INTAKE BY PURPOSE
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	CORR	BLNK	PRTL
GRAND	TOTAL	295	271	21	3

Table 3
WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 01 PEACE

STANDARD INDUSTRIAL CLASSIFICATION		TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CONDITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
04	MINES,QUARRIES & OIL WELLS							
0402	MINERAL FUELS							
0402-064	CRUDE PETR. & NATURAL GAS IND.	1365	30			545	66	723
MAJOR	TOTAL	1365	30			545	66	723
DIVISION	TOTAL	1365	30			545	66	723
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES							
0501-101	MEAT AND POULTRY PRODUCTS	9				5	3	1
0501-109	BEVERAGE INDUSTRIES	3	1					2
MAJOR	TOTAL	12	1			5	3	3
0508	WOOD INDUSTRIES							
0508-251	SAWMILLS,PLANING MILLS,SHINGLE	16					16	
MAJOR	TOTAL	16					16	
0517	NON-METALLIC MINERAL PRODUCTS							
0517-355	READYMIX CONCRETE MANUFACTURER	4	4					
MAJOR	TOTAL	4	4					
DIVISION	TOTAL	32	5			5	19	3
07	TRANS., COMM. & OTHER UTILITIE							
0704	ELEC. POWER, GAS & WATER UTILI							
0704-572	THERMAL ELECTRIC POWER	62		60			1	
MAJOR	TOTAL	62		60			1	
DIVISION	TOTAL	62		60			1	
RIV-BASN	TOTAL	1459	35	60		550	86	726

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 02 ATHABASCA

STANDARD INDUSTRIAL CLASSIFICATION	TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CON- DITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
04 MINES,QUARRIES & OIL WELLS							
0402 MINERAL FUELS							
0402-061 COAL MINES	495	480					14
0402-064 CRUDE PETR. & NATURAL GAS IND.	992	6			452	46	485
MAJOR TOTAL	1487	486			452	46	499
0404 QUARRIES AND SAND PITS							
0404-087 SAND PITS OR QUARRIES	6100	3400	770		1000	920	10
MAJOR TOTAL	6100	3400	770		1000	920	10
DIVISION TOTAL	7587	3886	770		1452	966	509
05 MANUFACTURING INDUSTRIES							
0501 FOOD AND BEVERAGES							
0501-104 DAIRY PRODUCTS	4						
MAJOR TOTAL	4						
0510 PAPER & ALLIED INDUSTRIES							
0510-271 PULP AND PAPER MILLS	7917	7771				146	
MAJOR TOTAL	7917	7771				146	
DIVISION TOTAL	7921	7771				146	
RIV-BASN TOTAL	15508	11657	770		1452	1112	509

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 03 NORTH SASK

STANDARD INDUSTRIAL CLASSIFICATION		TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CON-DITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
04	MINES, QUARRIES & OIL WELLS							
0402	MINERAL FUELS							
0402-064	CRUDE PETR. & NATURAL GAS IND.	890	60	2		615	45	157
MAJOR	TOTAL	890	60	2		615	45	157
0403	NON-METAL MINING (EXCEPT COAL)							
0403-079	MISC. NONMETAL MINES	1580	1571	1			5	2
MAJOR	TOTAL	1580	1571	1			5	2
DIVISION	TOTAL	2470	1631	3		615	50	159
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES							
0501-101	MEAT AND POULTRY PRODUCTS	961	690		2	66	57	140
0501-103	FRUIT AND VEG PROCESSING PLANT	4						
0501-104	DAIRY PRODUCTS	93	37			1	1	51
0501-105	FLOUR & BREAKFAST CEREAL PROD	1	1					
0501-106	FEED INDUSTRY	149	49				26	73
0501-107	BAKERY PRODUCTS	7				6		
0501-109	BEVERAGE INDUSTRIES	216	74		2	7	13	115
MAJOR	TOTAL	1431	851		4	80	97	379
0504	LEATHER INDUSTRIES							
0504-172	LEATHER TANNERIES	44	44					
MAJOR	TOTAL	44	44					
0505	TEXTILES INDUSTRIES							
0505-183	MANMADE FIBRE, YARN, CLOTH MILLS	3	1		1			
MAJOR	TOTAL	3	1		1			
0507	CLOTHING INDUSTRIES							
0507-249	MISC CLOTHING IND	3						3
MAJOR	TOTAL	3						3

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 03 NORTH SASK

STANDARD INDUSTRIAL CLASSIFICATION		TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CONDITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
0508	WOOD INDUSTRIES							
0508-251	SAWMILLS,PLANING MILLS,SHINGLE	3	2					
0508-259	MISCELLANEOUS WOOD INDUSTRIES	2					2	8
MAJOR	TOTAL	5	2				2	8
0510	PAPER & ALLIED INDUSTRIES							
0510-272	ASPHALT ROOFING MANUFACTURERS	8	2			4		1
0510-273	PAPER BOX & BAG MANUF	4	1			1		
MAJOR	TOTAL	12	3			5		1
0512	PRIMARY METAL INDUSTRIES							
0512-291	IRON & STEEL MILLS	1						
0512-292	STEEL PIPE AND TUBE MILLS	42	22			15		4
0512-294	IRON FOUNDRIES	5				3		1
0512-295	SMELTING AND REFINING	860	283	61		347	122	44
MAJOR	TOTAL	908	305	61		365	122	49
0513	METAL FABRICATING INDUSTRIES							
0513-302	FABRICATED STRUCT. METAL INDUS	301				71		230
0513-304	METAL STAMPING,PRESSING INDUST	1	1					
MAJOR	TOTAL	302	1			71		230
0515	TRANSPORTATION EQUIP. INDUSTR							
0515-324	TRUCK BODY & TRAILER MANUF	1						1
0515-326	RAILROAD ROLLING STOCK IND	14					9	5
MAJOR	TOTAL	15					9	6
0517	NON-METALLIC MINERAL PRODUCTS							
0517-352	CEMENT MANUFACTURERS	117	90			20		7
0517-354	CONCRETE PRODUCTS MANUFACTURER	29	14			1	8	3
0517-355	READYMIX CONCRETE MANUFACTURER	40	38					
0517-356	GLASS AND GLASS PRODUCTS	34	2			20		11
MAJOR	TOTAL	220	144			41	8	21

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 03 NORTH SASK

STANDARD INDUSTRIAL CLASSIFICATION	TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CON-DITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
0518 PETROLEUM AND COAL PRODUCTS							
0518-365 PETROLEUM REFINERIES	2063	15	22		1209	786	29
0518-369 MISC PETROLEUM & COAL PRODUCTS	125	119				5	1
MAJOR TOTAL	2188	134	22		1209	791	30
0519 CHEMICAL & CHEMICAL PRODUCTS							
0519-372 MIXED FERTILIZERS	910	210			440	220	40
0519-373 PLASTICS & SYNTHETIC RESINS	156	122		5	14	7	8
0519-378 INDUSTRIAL CHEMICALS	3707	2373			798	441	92
0519-379 MISC. CHEMICAL INDUSTRIES	19				13	3	
MAJOR TOTAL	4792	2705		5	1265	671	140
0520 MISC. MANUFACTURING IND.							
0520-399 MISC. MANUFACT. INDUSTRIES NES	49	3			44		2
MAJOR TOTAL	49	3			44		2
DIVISION TOTAL	9972	4193	83	10	3080	1700	869
07 TRANS., COMM. & OTHER UTILITIE							
0704 ELEC. POWER, GAS & WATER UTILI							
0704-572 THERMAL ELECTRIC POWER	283268	45360	275270		2099	4003	1890
MAJOR TOTAL	283268	45360	275270		2099	4003	1890
DIVISION TOTAL	283268	45360	275270		2099	4003	1890
RIV-BASN TOTAL	295710	51184	275356	10	5794	5753	2918

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 04 RED DEER

STANDARD INDUSTRIAL CLASSIFICATION		TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CON-DITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
04	MINES, QUARRIES & OIL WELLS							
0402	MINERAL FUELS							
0402-064	CRUDE PETR. & NATURAL GAS IND.	418	5			344	23	39
MAJOR	TOTAL	418	5			344	23	39
DIVISION	TOTAL	418	5			344	23	39
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES							
0501-101	MEAT AND POULTRY PRODUCTS	142	112	1		1	2	23
0501-104	DAIRY PRODUCTS	77	53		1	13	5	3
0501-109	BEVERAGE INDUSTRIES	3	2					
MAJOR	TOTAL	222	167	1	1	14	7	26
0518	PETROLEUM AND COAL PRODUCTS							
0518-365	PETROLEUM REFINERIES	12					3	8
MAJOR	TOTAL	12					3	8
DIVISION	TOTAL	234	167	1	1	14	10	34
RIV-BASN	TOTAL	652	172	1	1	358	33	73

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

STANDARD INDUSTRIAL CLASSIFICATION		TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CON-DITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
04	MINES, QUARRIES & OIL WELLS							
0402	MINERAL FUELS							
0402-061	COAL MINES	33	11		10	10		1
0402-064	CRUDE PETR. & NATURAL GAS IND.	1339	34	2		878	259	64
MAJOR	TOTAL	1372	45	2	10	888	259	65
0404	QUARRIES AND SAND PITS							
0404-087	SAND PITS OR QUARRIES	140	139					
MAJOR	TOTAL	140	139					
DIVISION	TOTAL	1512	184	2	10	888	259	65
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES							
0501-101	MEAT AND POULTRY PRODUCTS	1278	687		13	134	48	387
0501-103	FRUIT AND VEG PROCESSING PLANT	248	157			45	13	32
0501-104	DAIRY PRODUCTS	86	7	1		21	2	51
0501-105	FLOUR & BREAKFAST CEREAL PROD							
0501-106	FEED INDUSTRY	9				3		5
0501-107	BAKERY PRODUCTS	5	1					2
0501-108	MISCELLANEOUS FOOD INDUSTRIES	1295	392	78		785	23	12
0501-109	BEVERAGE INDUSTRIES	905	407		21	224	40	190
MAJOR	TOTAL	3826	1651	79	34	1212	126	679
0503	RUBBER AND PLASTICS PRODUCTS							
0503-162	RUBBER PRODUCTS INDUSTRIES	67	60				5	1
0503-165	PLASTIC FABRICATING INDUSTRY	7	5			2		
MAJOR	TOTAL	74	65			2	5	1
0508	WOOD INDUSTRIES							
0508-251	SAWMILLS, PLANING MILLS, SHINGLE	5	4					1
0508-259	MISCELLANEOUS WOOD INDUSTRIES	8					7	
MAJOR	TOTAL	13	4				7	1
0509	FURNITURE & FIXTURE INDUSTRIES							
0509-264	OFFICE FURNITURE MANUF							

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

STANDARD INDUSTRIAL CLASSIFICATION	TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CON-DITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
0509 FURNITURE & FIXTURE INDUSTRIES							
MAJOR TOTAL							
0510 PAPER & ALLIED INDUSTRIES							
0510-272 ASPHALT ROOFING MANUFACTURERS	185	163			13	7	
0510-273 PAPER BOX & BAG MANUF	12				6		3
0510-274 MISCELLANEOUS PAPER CONVERTERS	1						
MAJOR TOTAL	198	163			19	7	3
0511 PRINT, PUBLISH, & ALLIED INDUS							
0511-289 PUBLISHING & PRINTING	10	2		1			4
MAJOR TOTAL	10	2		1			4
0512 PRIMARY METAL INDUSTRIES							
0512-292 STEEL PIPE AND TUBE MILLS	6	1			3		1
0512-294 IRON FOUNDRIES	29				21		6
0512-296 ALUMINUM ROLLING,CASTING	35	21			10	1	1
0512-298 METAL ROLLING,CASTING,EXTRUDIN	1				1		
MAJOR TOTAL	71	22			35	1	8
0513 METAL FABRICATING INDUSTRIES							
0513-302 FABRICATED STRUCT. METAL INDUS	9						9
0513-305 WIRE PRODUCTS MANUFACTURING	4				4		
0513-309 MISC. METAL FABRICATING INDUST	2				1		1
MAJOR TOTAL	15				5		10
0514 MACHINERY INDUSTRIES							
0514-315 MISC MACHINERY&EQUIP MANUF	23						
MAJOR TOTAL	23						
0515 TRANSPORTATION EQUIP. INDUSTR							
0515-325 MOTOR VEHICLE PARTS & ACCES-MA	8				8		

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

STANDARD INDUSTRIAL CLASSIFICATION	TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CON- DITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
0515 TRANSPORTATION EQUIP. INDUSTR							
0515-325 RAILROAD ROLLING STOCK IND	79	5				15	57
MAJOR TOTAL	87	5			8	15	57
0516 ELECTRICAL PRODUCTS INDUSTRIES							
0516-338 MANUF OF ELECTRICAL CABE &WIRE	27	27					
0516-339 MANUF.OF MISC. ELECTRICAL PROD	53	48			2		1
MAJOR TOTAL	80	75			2		1
0517 NON-METALLIC MINERAL PRODUCTS							
0517-351 CLAY PRODUCTS MANUFACTURERS	11	2			6		
0517-352 CEMENT MANUFACTURERS	117	86			25		5
0517-354 CONCRETE PRODUCTS MANUFACTURER	61	55				1	
0517-355 READYMIX CONCRETE MANUFACTURER	451	445				1	3
0517-356 GLASS AND GLASS PRODUCTS	3				1		1
0517-358 LIME MANUFACTURERS	109	86			21		2
0517-359 MISC. NON-METALLIC MINERAL PRO	17	11				1	5
MAJOR TOTAL	769	686			53	3	16
0518 PETROLEUM AND COAL PRODUCTS							
0518-365 PETROLEUM REFINERIES	6309	1929			4216	163	
0518-369 MISC PETROLEUM & COAL PRODUCTS	651	19			579	48	5
MAJOR TOTAL	6960	1948			4795	211	5
0519 CHEMICAL & CHEMICAL PRODUCTS							
0519-372 MIXED FERTILIZERS	13190	40			12896	276	25
0519-378 INDUSTRIAL CHEMICALS	714	273			390	48	3
0519-379 MISC. CHEMICAL INDUSTRIES	409				323	19	65
MAJOR TOTAL	14313	313			13609	343	93
DIVISION TOTAL	26439	4934	79	35	19740	718	878
07 TRANS., COMM. & OTHER UTILITIE							
0704 ELEC. POWER, GAS & WATER UTILI							
0704-572 THERMAL ELECTRIC POWER	14215		14190			13	12

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

STANDARD INDUSTRIAL CLASSIFICATION		TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CON-DITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
07	TRANS., COMM. & OTHER UTILITIE							
0704	ELEC. POWER, GAS & WATER UTILI							
MAJOR	TOTAL	14215		14190			13	12
DIVISION	TOTAL	14215		14190			13	12
RIV-BASN	TOTAL	42166	5118	14271	45	20628	990	955

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
(MILLIONS OF GALLONS)

STANDARD INDUSTRIAL CLASSIFICATION	TOTAL WATER INTAKE	INTAKE FOR PROCESS	INTAKE STEAM ELEC POW	INTAKE AIR CON-DITION'G	INTAKE COOLING CONDEN'G	INTAKE BOILER MAKE-UP	INTAKE SANITARY & OTHER
GRAND TOTAL	355495	68165	290458	56	28782	7974	5181

Table 4
WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 01 PEACE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	CORR	BLNK	PRTL
04	MINES,QUARRIES & OIL WELLS				
0402	MINERAL FUELS	9	9		
DIVISION TOTAL		9	9		
05	MANUFACTURING INDUSTRIES				
0501	FOOD AND BEVERAGES	2	2		
0508	WOOD INDUSTRIES	1	1		
0517	NON-METALLIC MINERAL PRODUCTS	3	3		
DIVISION TOTAL		6	6		
07	TRANS., COMM. & OTHER UTILITIE				
0702	ELEC. POWER, GAS & WATER UTILI	2	2		
DIVISION TOTAL		2	2		
RIV-BASN TOTAL		17	17		

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 02 ATHABASCA

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	CORR	BLNK	PRTL
04	MINES,QUARRIES & OIL WELLS				
0402	MINERAL FUELS	7	7		
0404	QUARRIES AND SAND PITS	1	1		
DIVISION TOTAL		8	8		
05	MANUFACTURING INDUSTRIES				
0501	FOOD AND BEVERAGES	1	1		
0510	PAPER & ALLIED INDUSTRIES	1	1		
DIVISION TOTAL		2	2		
RIV-BASN TOTAL		10	10		

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 03 NORTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	CORR	BLNK	PRTL
04	MINES,QUARRIES & OIL WELLS				
0402	MINERAL FUELS	12	12		
0403	NON-METAL MINING (EXCEPT COAL)	1	1		
0404	QUARRIES AND SAND PITS	2	2		
DIVISION TOTAL		15	15		
05	MANUFACTURING INDUSTRIES				
0501	FOOD AND BEVERAGES	25	23	1	1
0503	RUBBER AND PLASTICS PRODUCTS	1	1		
0504	LEATHER INDUSTRIES	1	1		
0505	TEXTILES INDUSTRIES	1	1		
0507	CLOTHING INDUSTRIES	1	1		
0508	WOOD INDUSTRIES	2	2		
0510	PAPER & ALLIED INDUSTRIES	3	3		
0512	PRIMARY METAL INDUSTRIES	5	5		
0513	METAL FABRICATING INDUSTRIES	6	6		
0515	TRANSPORTATION EQUIP. INDUSTR	2	2		
0517	NON-METALLIC MINERAL PRODUCTS	15	14	1	
0518	PETROLEUM AND COAL PRODUCTS	5	5		
0519	CHEMICAL & CHEMICAL PRODUCTS	16	15	1	
0520	MISC. MANUFACTURING IND.	1	1		
DIVISION TOTAL		84	80	3	1
07	TRANS., COMM. & OTHER UTILITIE				
0704	ELEC. POWER, GAS & WATER UTILI	5	5		
DIVISION TOTAL		5	5		
RIV-BASN TOTAL		104	100	3	1

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 04 RED DEER

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	CORR	BLNK	PRTL
04	MINES,QUARRIES & OIL WELLS				
0402	MINERAL FUELS	10	10		
DIVISION TOTAL		10	10		
05	MANUFACTURING INDUSTRIES				
0501	FOOD AND BEVERAGES	7	7		
0517	NON-METALLIC MINERAL PRODUCTS	2	2		
0518	PETROLEUM AND COAL PRODUCTS	1	1		
DIVISION TOTAL		10	10		
RIV-BASN TOTAL		20	20		

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 05 SOUTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	CORR	BLNK	PRTL
04	MINES,QUARRIES & OIL WELLS				
0402	MINERAL FUELS	18	17	1	
0404	QUARRIES AND SAND PITS	3	3		
DIVISION TOTAL		21	20	1	
05	MANUFACTURING INDUSTRIES				
0501	FOOD AND BEVERAGES	52	43	8	1
0503	RUBBER AND PLASTICS PRODUCTS	4	4		
0508	WOOD INDUSTRIES	2	2		
0509	FURNITURE & FIXTURE INDUSTRIES	1		1	
0510	PAPER & ALLIED INDUSTRIES	6	2	3	1
0511	PRINT, PUBLISH, & ALLIED INDUS	2	1	1	
0512	PRIMARY METAL INDUSTRIES	7	7		
0513	METAL FABRICATING INDUSTRIES	4	4		
0514	MACHINERY INDUSTRIES	1		1	
0515	TRANSPORTATION EQUIP. INDUSTR	2	2		
0516	ELECTRICAL PRODUCTS INDUSTRIES	5	4	1	
0517	NON-METALLIC MINERAL PRODUCTS	26	25	1	
0518	PETROLEUM AND COAL PRODUCTS	3	3		
0519	CHEMICAL & CHEMICAL PRODUCTS	6	5	1	
DIVISION TOTAL		121	102	17	2
07	TRANS., COMM. & OTHER UTILITIE				
0704	ELEC. POWER, GAS & WATER UTILI	2	2		
DIVISION TOTAL		2	2		
RIV-BASN TOTAL		144	124	18	2

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE BY PURPOSE
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	CORR	BLNK	PRTL
GRAND	TOTAL	295	271	21	3

ITEM III Water Recirculated or Reused by Purpose - Tables 5, 6, 7, 8.

Water recirculation data was obtained in order to provide an indication of the various possibilities for and applications of water reuse. Patterns in recirculation by industrial group could be interesting and useful information.

The response to this item was generally good, but due to the lack of meters on recirculation processes in most establishments, many figures received were only estimates. Responses to this question were grouped as follows:

(a) Blank - as explained earlier.

(b) No recirculation - applies to firms where no recirculation takes place.

(c) Yes and Answered Correctly - applies to all responses where water recirculation or reuse was indicated and figures, designating the application of the reuse, were provided.

(d) Yes and Total only - applies to responses which indicate recirculation, as well as the total amount of water recirculated. Responses classified in this way did not provide a breakdown by purpose. The reported totals were recorded in these cases, but no quantities could be recorded into the breakdowns by purpose.

(e) Yes and Breakdown only - applies to firms which provided figures on recirculation by purpose to the best of their ability, but made no indication of the total quantities involved. In these cases, only the breakdowns were added into the tables, while no total was recorded.

(f) Yes and Remainder Blank - applies to cases where recirculation was indicated but the figures were not provided.

For our example (Mineral, Fuels, S.I.C. Code 0402). Table 6 shows the following distribution of questionnaire responses:

(a) total questionnaires - 56

(b) Yes and answered correctly - 26

(c) No recirculation - 24

(d) Blank - 6

There were no questionnaires grouped into any of the other categories.

Table 5
WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

04 MINES, QUARRIES & OIL WELLS

STAND'D IND CLS CODE MIN	STANDARD INDUSTRIAL CLASSIFICATION	TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
0402	MINERAL FUELS							
0402-061	COAL MINES	1026	1025				1	
0402-064	CRUDE PETR. & NATURAL GAS IND.	122642	756	4204		93704	23841	18
MAJOR	TOTAL	123668	1781	4204		93704	23842	18
0403	NON-METAL MINING (EXCEPT COAL)							
0403-079	MISC. NONMETAL MINES							
MAJOR	TOTAL							
0404	QUARRIES AND SAND PITS							
0404-087	SAND PITS OR QUARRIES	9571	9571					
MAJOR	TOTAL	9571	9571					
DIVISION	TOTAL	133239	11352	4204		93704	23842	18

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

05 MANUFACTURING INDUSTRIES

STAND'D IND CLS CODE MIN	STANDARD INDUSTRIAL CLASSIFICATION	TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
0501	FOOD AND BEVERAGES							
0501-101	MEAT AND POULTRY PRODUCTS	2936	473		1208	938	82	233
0501-103	FRUIT AND VEG PROCESSING PLANT							
0501-104	DAIRY PRODUCTS	320	136		77	64	40	
0501-105	FLOUR & BREAKFAST CEREAL PROD							
0501-106	FEED INDUSTRY	32					32	
0501-107	BAKERY PRODUCTS							
0501-108	MISCELLANEOUS FOOD INDUSTRIES	3325	727	156	640	1766	24	10
0501-109	BEVERAGE INDUSTRIES	1924	283		795	715	63	67
MAJOR	TOTAL	8537	1619	156	2720	3483	241	310
0503	RUBBER AND PLASTICS PRODUCTS							
0503-162	RUBBER PRODUCTS INDUSTRIES	60				60		
0503-165	PLASTIC FABRICATING INDUSTRY							
MAJOR	TOTAL	60				60		
0504	LEATHER INDUSTRIES							
0504-172	LEATHER TANNERIES							
MAJOR	TOTAL							
0505	TEXTILES INDUSTRIES							
0505-183	MANMADE FIBRE,YARN,CLOTH MILLS							
MAJOR	TOTAL							
0507	CLOTHING INDUSTRIES							
0507-249	MISC CLOTHING IND							
MAJOR	TOTAL							
0508	WOOD INDUSTRIES							
0508-251	SAWMILLS,PLANING MILLS,SHINGLE							
0508-259	MISCELLANEOUS WOOD INDUSTRIES	375				359	16	
MAJOR	TOTAL	375				359	16	
0509	FURNITURE & FIXTURE INDUSTRIES							
0509-264	OFFICE FURNITURE MANUF							
MAJOR	TOTAL							

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

05 MANUFACTURING INDUSTRIES

STAND'D IND CLS CODE MIN	STANDARD INDUSTRIAL CLASSIFICATION	TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
0510	PAPER & ALLIED INDUSTRIES							
0510-271	PULP AND PAPER MILLS							
0510-272	ASPHALT ROOFING MANUFACTURERS	34	26			8		
0510-273	PAPER BOX & BAG MANUF	1					1	
0510-274	MISCELLANEOUS PAPER CONVERTERS							
MAJOR	TOTAL	35	26			8	1	
0511	PRINT, PUBLISH, & ALLIED INDUS							
0511-289	PUBLISHING & PRINTING							
MAJOR	TOTAL							
0512	PRIMARY METAL INDUSTRIES							
0512-291	IRON & STEEL MILLS	50				50		
0512-292	STEEL PIPE AND TUBE MILLS	2090	2122			90		1
0512-294	IRON FOUNDRIES	3				3		
0512-295	SMELTING AND REFINING	25769	52	3834		21730	153	
0512-296	ALUMINUM ROLLING,CASTING	62	31			20	7	2
0512-298	METAL ROLLING,CASTING,EXTRUDIN							
MAJOR	TOTAL	27974	2205	3834		21893	160	3
0513	METAL FABRICATING INDUSTRIES							
0513-302	FABRICATED STRUCT. METAL INDUS	4105				4105		
0513-304	METAL STAMPING,PRESSING INDUST							
0513-305	WIRE PRODUCTS MANUFACTURING							
0513-309	MISC. METAL FABRICATING INDUST							
MAJOR	TOTAL	4105				4105		
0514	MACHINERY INDUSTRIES							
0514-315	MISC MACHINERY&EQUIP MANUF							
MAJOR	TOTAL							
0515	TRANSPORTATION EQUIP. INDUSTR							
0515-324	TRUCK BODY & TRAILER MANUF							
0515-325	MOTOR VEHICLE PARTS & ACCES-MA							
0515-326	RAILROAD ROLLING STOCK IND	94				82	12	
MAJOR	TOTAL	94				82	12	
0516	ELECTRICAL PRODUCTS INDUSTRIES							

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

05 MANUFACTURING INDUSTRIES

STAND'D IND CLS CODE MIN	STANDARD INDUSTRIAL CLASSIFICATION	TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
0516	ELECTRICAL PRODUCTS INDUSTRIES							
0516-338	MANUF OF ELECTRICAL CABE &WIRE							
0516-339	MANUF.OF MISC. ELECTRICAL PROD							
MAJOR	TOTAL							
0517	NON-METALLIC MINERAL PRODUCTS							
0517-351	CLAY PRODUCTS MANUFACTURERS							
0517-352	CEMENT MANUFACTURERS	100				100		
0517-354	CONCRETE PRODUCTS MANUFACTURER	4	4					
0517-355	READYMIX CONCRETE MANUFACTURER	324	324					
0517-356	GLASS AND GLASS PRODUCTS	298	50			248		
0517-358	LIME MANUFACTURERS	210	210					
0517-359	MISC. NON-METALLIC MINERAL PRO							
MAJOR	TOTAL	936	588			348		
0518	PETROLEUM AND COAL PRODUCTS							
0518-365	PETROLEUM REFINERIES	16723	5786			10778	31	131
0518-369	MISC PETROLEUM & COAL PRODUCTS	2147	2100			32	15	
MAJOR	TOTAL	18870	7886			10810	46	131
0519	CHEMICAL & CHEMICAL PRODUCTS							
0519-372	MIXED FERTILIZERS	25471	3422			22000	49	
0519-373	PLASTICS & SYNTHETIC RESINS	6975				6905	70	
0519-378	INDUSTRIAL CHEMICALS	69298	565	876		67381	493	
0519-379	MISC. CHEMICAL INDUSTRIES	12				10	1	
MAJOR	TOTAL	101756	3987	876		96296	613	
0520	MISC. MANUFACTURING IND.							
0520-399	MISC. MANUFACT. INDUSTRIES NES							
MAJOR	TOTAL							
DIVISION	TOTAL	162742	16311	4866	2720	137444	1089	444

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

07 TRANS., COMM. & OTHER UTILITIE

STAND'D IND CLS CODE MIN	STANDARD INDUSTRIAL CLASSIFICATION	TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
0704	ELEC. POWER, GAS & WATER UTILI							
0704-572	THERMAL ELECTRIC POWER	20112		19786		326		
MAJOR	TOTAL	20112		19786		326		
DIVISION	TOTAL	20112		19786		326		

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

STAND'D IND CLS CODE MIN	STANDARD INDUSTRIAL CLASSIFICATION	TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
GRAND TOTAL		316093	27663	29856	2720	231474	24931	462

Table 6

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972

WATER RECIRCULATED OR REUSED BY PURPOSE

SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	YES& CORR	NO RECN	BLNK	YES& TOTL	YES& BKDN	YES& BLNK
04	MINES,QUARRIES & OIL WELLS							
0402	MINERAL FUELS	56	26	24	6			
0403	NON-METAL MINING (EXCEPT COAL)	1		1				
0404	QUARRIES AND SAND PITS	6	4	2				
DIVISION TOTAL		63	30	27	6			
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES	87	31	37	5			14
0503	RUBBER AND PLASTICS PRODUCTS	5	3	2				
0504	LEATHER INDUSTRIES	1		1				
0505	TEXTILES INDUSTRIES	1						1
0507	CLOTHING INDUSTRIES	1	1					
0508	WOOD INDUSTRIES	5	2	3				
0509	FURNITURE & FIXTURE INDUSTRIES	1			1			
0510	PAPER & ALLIED INDUSTRIES	10	4	2	2			2
0511	PRINT, PUBLISH, & ALLIED INDUS	2		1				1
0512	PRIMARY METAL INDUSTRIES	12	6	5			1	
0513	METAL FABRICATING INDUSTRIES	10	2	7				1
0514	MACHINERY INDUSTRIES	1			1			
0515	TRANSPORTATION EQUIP. INDUSTR	4	2	1				1
0516	ELECTRICAL PRODUCTS INDUSTRIES	5		4	1			
0517	NON-METALLIC MINERAL PRODUCTS	46	6	36	2			2
0518	PETROLEUM AND COAL PRODUCTS	9	5	4				
0519	CHEMICAL & CHEMICAL PRODUCTS	22	9	8	1		1	3
0520	MISC. MANUFACTURING IND.	1		1				
DIVISION TOTAL		223	71	112	13		2	25
07	TRANS., COMM. & OTHER UTILITIE							
0704	ELEC. POWER, GAS & WATER UTILI	9	5	4				
DIVISION TOTAL		9	5	4				

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	YES& CORR	NO RECN	BLNK	YES& TOTL	YES& BKDN	YES& BLNK
GRAND	TOTAL	295	106	143	19		2	25

Table 7
WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 01 PEACE

STANDARD INDUSTRIAL CLASSIFICATION		TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
04	MINES, QUARRIES & OIL WELLS							
0402	MINERAL FUELS							
0402-064	CRUDE PETR. & NATURAL GAS IND.	106				30	74	1
MAJOR	TOTAL	106				30	74	1
DIVISION	TOTAL	106				30	74	1
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES							
0501-101	MEAT AND POULTRY PRODUCTS							
0501-109	BEVERAGE INDUSTRIES							
MAJOR	TOTAL							
0508	WOOD INDUSTRIES							
0508-251	SAWMILLS, PLANING MILLS, SHINGLE							
MAJOR	TOTAL							
0517	NON-METALLIC MINERAL PRODUCTS							
0517-355	READYMIX CONCRETE MANUFACTURER							
MAJOR	TOTAL							
DIVISION	TOTAL							
07	TRANS., COMM. & OTHER UTILITIE							
0704	ELEC. POWER, GAS & WATER UTILI							
0704-572	THERMAL ELECTRIC POWER	3450		3450				
MAJOR	TOTAL	3450		3450				
DIVISION	TOTAL	3450		3450				
RIV-BASN	TOTAL	3556		3450		30	74	1

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 02 ATHABASCA

STANDARD INDUSTRIAL CLASSIFICATION	TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
04 MINES,QUARRIES & OIL WELLS							
0402 MINERAL FUELS							
0402-061 COAL MINES	1025	1025					
0402-064 CRUDE PETR. & NATURAL GAS IND.	14035	5			13414	514	2
MAJOR TOTAL	15060	1030			13414	514	2
0404 QUARRIES AND SAND PITS							
0404-087 SAND PITS OR QUARRIES	9200	9200					
MAJOR TOTAL	9200	9200					
DIVISION TOTAL	24260	10230			13414	514	2
05 MANUFACTURING INDUSTRIES							
0501 FOOD AND BEVERAGES							
0501-104 DAIRY PRODUCTS							
MAJOR TOTAL							
0510 PAPER & ALLIED INDUSTRIES							
0510-271 PULP AND PAPER MILLS							
MAJOR TOTAL							
DIVISION TOTAL							
RIV-BASN TOTAL	24260	10230			13414	514	2

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 03 NORTH SASK

STANDARD INDUSTRIAL CLASSIFICATION	TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
04 MINES,QUARRIES & OIL WELLS							
0402 MINERAL FUELS							
0402-064 CRUDE PETR. & NATURAL GAS IND.	34876	748	4204		9327	20593	
MAJOR TOTAL	34876	748	4204		9327	20593	
0403 NON-METAL MINING (EXCEPT COAL)							
0403-079 MISC. NONMETAL MINES							
MAJOR TOTAL							
DIVISION TOTAL	34876	748	4204		9327	20593	
05 MANUFACTURING INDUSTRIES							
0501 FOOD AND BEVERAGES							
0501-101 MEAT AND POULTRY PRODUCTS	2305	324		1208	633	75	63
0501-103 FRUIT AND VEG PROCESSING PLANT							
0501-104 DAIRY PRODUCTS	117	48			29	38	
0501-105 FLOUR & BREAKFAST CEREAL PROD							
0501-106 FEED INDUSTRY	31					31	
0501-107 BAKERY PRODUCTS							
0501-109 BEVERAGE INDUSTRIES	400	56		164	164	15	
MAJOR TOTAL	2853	428		1372	826	159	63
0504 LEATHER INDUSTRIES							
0504-172 LEATHER TANNERIES							
MAJOR TOTAL							
0505 TEXTILES INDUSTRIES							
0505-183 MANMADE FIBRE,YARN,CLOTH MILLS							
MAJOR TOTAL							
0507 CLOTHING INDUSTRIES							
0507-249 MISC CLOTHING IND							
MAJOR TOTAL							

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 03 NORTH SASK

STANDARD INDUSTRIAL CLASSIFICATION	TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
0508 WOOD INDUSTRIES							
0508-251 SAWMILLS,PLANING MILLS,SHINGLE							
0508-259 MISCELLANEOUS WOOD INDUSTRIES	360				357	3	
MAJOR TOTAL	360				357	3	
0510 PAPER & ALLIED INDUSTRIES							
0510-272 ASPHALT ROOFING MANUFACTURERS	34	26			8		
0510-273 PAPER BOX & BAG MANUF							
MAJOR TOTAL	34	26			8		
0512 PRIMARY METAL INDUSTRIES							
0512-291 IRON & STEEL MILLS	50				50		
0512-292 STEEL PIPE AND TUBE MILLS	2090	2000			90		
0512-294 IRON FOUNDRIES							
0512-295 SMELTING AND REFINING	25769	52	3834		21730	153	
MAJOR TOTAL	27909	2052	3834		21870	153	
0513 METAL FABRICATING INDUSTRIES							
0513-302 FABRICATED STRUCT. METAL INDUS	4105				4105		
0513-304 METAL STAMPING,PRESSING INDUST							
MAJOR TOTAL	4105				4105		
0515 TRANSPORTATION EQUIP. INDUSTR							
0515-324 TRUCK BODY & TRAILER MANUF							
0515-326 RAILROAD ROLLING STOCK IND	12					12	
MAJOR TOTAL	12					12	
0517 NON-METALLIC MINERAL PRODUCTS							
0517-352 CEMENT MANUFACTURERS	100				100		
0517-354 CONCRETE PRODUCTS MANUFACTURER							
0517-355 READYMIX CONCRETE MANUFACTURER	324	324					
0517-356 GLASS AND GLASS PRODUCTS	79	50			29		
MAJOR TOTAL	503	374			129		

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 03 NORTH SASK

STANDARD INDUSTRIAL CLASSIFICATION	TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
0518 PETROLEUM AND COAL PRODUCTS							
0518-365 PETROLEUM REFINERIES	16723	5786			10778	31	131
0518-369 MISC PETROLEUM & COAL PRODUCTS	2147	2100			32	15	
MAJOR TOTAL	18870	7886			10810	46	131
0519 CHEMICAL & CHEMICAL PRODUCTS							
0519-372 MIXED FERTILIZERS	18800	2800			16000		
0519-373 PLASTICS & SYNTHETIC RESINS	6975				6905	70	
0519-378 INDUSTRIAL CHEMICALS	62038	565	876		60175	439	
0519-379 MISC. CHEMICAL INDUSTRIES	12				10	1	
MAJOR TOTAL	87825	3365	876		83090	510	
0520 MISC. MANUFACTURING IND.							
0520-399 MISC. MANUFACT. INDUSTRIES NES							
MAJOR TOTAL							
DIVISION TOTAL	142471	14131	4710	1372	121195	883	194
07 TRANS., COMM. & OTHER UTILITIE							
0704 ELEC. POWER, GAS & WATER UTILI							
0704-572 THERMAL ELECTRIC POWER	16662		16336		326		
MAJOR TOTAL	16662		16336		326		
DIVISION TOTAL	16662		16336		326		
RIV-BASN TOTAL	194009	14879	25250	1372	130848	21476	194

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 04 RED DEER

STANDARD INDUSTRIAL CLASSIFICATION		TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
04	MINES,QUARRIES & OIL WELLS							
0402	MINERAL FUELS							
0402-064	CRUDE PETR. & NATURAL GAS IND.	7115				7001	100	
MAJOR	TOTAL	7115				7001	100	
DIVISION	TOTAL	7115				7001	100	
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES							
0501-101	MEAT AND POULTRY PRODUCTS	2				1	1	
0501-104	DAIRY PRODUCTS	110	83			27		
0501-109	BEVERAGE INDUSTRIES							
MAJOR	TOTAL	112	83			28	1	
0518	PETROLEUM AND COAL PRODUCTS							
0518-365	PETROLEUM REFINERIES							
MAJOR	TOTAL							
DIVISION	TOTAL	112	83			28	1	
RIV-BASN	TOTAL	7227	83			7029	101	

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

STANDARD INDUSTRIAL CLASSIFICATION		TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
04	MINES,QUARRIES & OIL WELLS							
0402	MINERAL FUELS							
0402-061	COAL MINES	1					1	
0402-064	CRUDE PETR. & NATURAL GAS IND.	66510	3			63932	2560	15
MAJOR	TOTAL	66511	3			63932	2561	15
0404	QUARRIES AND SAND PITS							
0404-087	SAND PITS OR QUARRIES	371	371					
MAJOR	TOTAL	371	371					
DIVISION	TOTAL	66882	374			63932	2561	15
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES							
0501-101	MEAT AND POULTRY PRODUCTS	629	149			304	6	170
0501-103	FRUIT AND VEG PROCESSING PLANT							
0501-104	DAIRY PRODUCTS	93	5		77	8	2	
0501-105	FLOUR & BREAKFAST CEREAL PROD							
0501-106	FEED INDUSTRY	1					1	
0501-107	BAKERY PRODUCTS							
0501-108	MISCELLANEOUS FOOD INDUSTRIES	3325	727	156	640	1766	24	10
0501-109	BEVERAGE INDUSTRIES	1524	227		631	551	48	67
MAJOR	TOTAL	5572	1108	156	1348	2629	81	247
0503	RUBBER AND PLASTICS PRODUCTS							
0503-162	RUBBER PRODUCTS INDUSTRIES	60				60		
0503-165	PLASTIC FABRICATING INDUSTRY							
MAJOR	TOTAL	60				60		
0508	WOOD INDUSTRIES							
0508-251	SAWMILLS,PLANING MILLS,SHINGLE							
0508-259	MISCELLANEOUS WOOD INDUSTRIES	15				2	13	
MAJOR	TOTAL	15				2	13	
0509	FURNITURE & FIXTURE INDUSTRIES							
0509-264	OFFICE FURNITURE MANUF							

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

STANDARD INDUSTRIAL CLASSIFICATION	TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
0509 FURNITURE & FIXTURE INDUSTRIES							
MAJOR TOTAL							
0510 PAPER & ALLIED INDUSTRIES							
0510-272 ASPHALT ROOFING MANUFACTURERS							
0510-273 PAPER BOX & BAG MANUF	1					1	
0510-274 MISCELLANEOUS PAPER CONVERTERS							
MAJOR TOTAL	1					1	
0511 PRINT, PUBLISH, & ALLIED INDUS							
0511-289 PUBLISHING & PRINTING							
MAJOR TOTAL							
0512 PRIMARY METAL INDUSTRIES							
0512-292 STEEL PIPE AND TUBE MILLS		122					1
0512-294 IRON FOUNDRIES	3				3		
0512-296 ALUMINUM ROLLING,CASTING	62	31			20	7	2
0512-298 METAL ROLLING,CASTING,EXTRUDIN							
MAJOR TOTAL	65	153			23	7	3
0513 METAL FABRICATING INDUSTRIES							
0513-302 FABRICATED STRUCT. METAL INDUS							
0513-305 WIRE PRODUCTS MANUFACTURING							
0513-309 MISC. METAL FABRICATING INDUST							
MAJOR TOTAL							
0514 MACHINERY INDUSTRIES							
0514-315 MISC MACHINERY&EQUIP MANUF							
MAJOR TOTAL							
0515 TRANSPORTATION EQUIP. INDUSTR							
0515-325 MOTOR VEHICLE PARTS & ACCES-MA							

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

STANDARD INDUSTRIAL CLASSIFICATION	TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
0515 TRANSPORTATION EQUIP. INDUSTR							
0515-326 RAILROAD ROLLING STOCK IND	82				82		
MAJOR TOTAL	82				82		
0516 ELECTRICAL PRODUCTS INDUSTRIES							
0516-338 MANUF OF ELECTRICAL CABE &WIRE							
0516-339 MANUF.OF MISC. ELECTRICAL PROD							
MAJOR TOTAL							
0517 NON-METALLIC MINERAL PRODUCTS							
0517-351 CLAY PRODUCTS MANUFACTURERS							
0517-352 CEMENT MANUFACTURERS							
0517-354 CONCRETE PRODUCTS MANUFACTURER	4	4					
0517-355 READYMIX CONCRETE MANUFACTURER							
0517-356 GLASS AND GLASS PRODUCTS	219				219		
0517-358 LIME MANUFACTURERS	210	210					
0517-359 MISC. NON-METALLIC MINERAL PRO							
MAJOR TOTAL	433	214			219		
0518 PETROLEUM AND COAL PRODUCTS							
0518-365 PETROLEUM REFINERIES							
0518-369 MISC PETROLEUM & COAL PRODUCTS							
MAJOR TOTAL							
0519 CHEMICAL & CHEMICAL PRODUCTS							
0519-372 MIXED FERTILIZERS	6671	622			6000	49	
0519-378 INDUSTRIAL CHEMICALS	7260				7206	54	
0519-379 MISC. CHEMICAL INDUSTRIES							
MAJOR TOTAL	13931	622			13206	103	
DIVISION TOTAL	20159	2097	156	1348	16221	205	250
07 TRANS., COMM. & OTHER UTILITIE							
0704 ELEC. POWER, GAS & WATER UTILI							
0704-572 THERMAL ELECTRIC POWER							

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

STANDARD INDUSTRIAL CLASSIFICATION	TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
07 TRANS., COMM. & OTHER UTILITIE							
0704 ELEC. POWER, GAS & WATER UTILI							
MAJOR TOTAL							
DIVISION TOTAL							
RIV-BASN TOTAL	87041	2471	156	1348	80153	2766	265

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
(MILLIONS OF GALLONS)

STANDARD INDUSTRIAL CLASSIFICATION	TOTAL RECIRCU-LATED	RECIRCLN FOR PROCESS	RECIRCLN STEAM ELEC POW	RECIRCLN AIR CON-DITION'G	RECIRCLN COOLING CONDEN'G	RECIRCLN BOILER MAKE-UP	RECIRCLN SANITARY & OTHER
GRAND TOTAL	316093	27663	28856	2720	231474	24931	462

Table 8

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 01 PEACE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	YES& CORR	NO RECN	BLNK	YES& TOTL	YES& BKDN	YES& BLNK
04	MINES,QUARRIES & OIL WELLS							
0402	MINERAL FUELS	9	3	6				
DIVISION TOTAL		9	3	6				
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES	2		2				
0508	WOOD INDUSTRIES	1		1				
0517	NON-METALLIC MINERAL PRODUCTS	3		3				
DIVISION TOTAL		6		6				
07	TRANS., COMM. & OTHER UTILITIE							
0704	ELEC. POWER, GAS & WATER UTILI	2	1	1				
DIVISION TOTAL		2	1	1				
RIV-BASN TOTAL		17	4	13				

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 02 ATHABASCA

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	YES& CORR	NO RECN	BLNK	YES& TOTL	YES& BKDN	YES& BLNK
04	MINES,QUARRIES & OIL WELLS							
0402	MINERAL FUELS	7	5	2				
0404	QUARRIES AND SAND PITS	1	1					
DIVISION TOTAL		8	6	2				
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES	1						1
0510	PAPER & ALLIED INDUSTRIES	1						1
DIVISION TOTAL		2						2
RIV-BASN TOTAL		10	6	2				2

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 03 NORTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	YES& CORR	NO RECN	BLNK	YES& TOTL	YES& BKDN	YES& BLNK
04	MINES,QUARRIES & OIL WELLS							
0402	MINERAL FUELS	12	4	5	3			
0403	NON-METAL MINING (EXCEPT COAL)	1		1				
0404	QUARRIES AND SAND PITS	2		2				
DIVISION TOTAL		15	4	8	3			
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES	25	14	8				3
0503	RUBBER AND PLASTICS PRODUCTS	1	1					
0504	LEATHER INDUSTRIES	1		1				
0505	TEXTILES INDUSTRIES	1						1
0507	CLOTHING INDUSTRIES	1	1					
0508	WOOD INDUSTRIES	2	1	1				
0510	PAPER & ALLIED INDUSTRIES	3	2	1				
0512	PRIMARY METAL INDUSTRIES	5	4	1				
0513	METAL FABRICATING INDUSTRIES	6	2	4				
0515	TRANSPORTATION EQUIP. INDUSTR	2	1					1
0517	NON-METALLIC MINERAL PRODUCTS	15	3	10	1			1
0518	PETROLEUM AND COAL PRODUCTS	5	5					
0519	CHEMICAL & CHEMICAL PRODUCTS	16	7	5			1	3
0520	MISC. MANUFACTURING IND.	1		1				
DIVISION TOTAL		84	41	32	1		1	9
07	TRANS., COMM. & OTHER UTILITIE							
0704	ELEC. POWER, GAS & WATER UTILI	5	4	1				
DIVISION TOTAL		5	4	1				
RIV-BASN TOTAL		104	49	41	4		1	9

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 04 RED DEER

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	YES& CORR	NO RECN	BLNK	YES& TOTL	YES& BKDN	YES& BLNK
04	MINES,QUARRIES & OIL WELLS							
0402	MINERAL FUELS	10	3	6	1			
DIVISION TOTAL		10	3	6	1			
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES	7	3	2				2
0517	NON-METALLIC MINERAL PRODUCTS	2		2				
0518	PETROLEUM AND COAL PRODUCTS	1		1				
DIVISION TOTAL		10	3	5				2
RIV-BASN TOTAL		20	6	11	1			2

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 05 SOUTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	YES& CORR	NO RECN	BLNK	YES& TOTL	YES& BKDN	YES& BLNK
04	MINES,QUARRIES & OIL WELLS							
0402	MINERAL FUELS	18	11	5	2			
0404	QUARRIES AND SAND PITS	3	3					
DIVISION TOTAL		21	14	5	2			
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES	52	14	25	5			8
0503	RUBBER AND PLASTICS PRODUCTS	4	2	2				
0508	WOOD INDUSTRIES	2	1	1				
0509	FURNITURE & FIXTURE INDUSTRIES	1			1			
0510	PAPER & ALLIED INDUSTRIES	6	2	1	2			1
0511	PRINT, PUBLISH, & ALLIED INDUS	2		1				1
0512	PRIMARY METAL INDUSTRIES	7	2	4			1	
0513	METAL FABRICATING INDUSTRIES	4		3				1
0514	MACHINERY INDUSTRIES	1			1			
0515	TRANSPORTATION EQUIP. INDUSTR	2	1	1				
0516	ELECTRICAL PRODUCTS INDUSTRIES	5		4	1			
0517	NON-METALLIC MINERAL PRODUCTS	26	3	21	1			1
0518	PETROLEUM AND COAL PRODUCTS	3		3				
0519	CHEMICAL & CHEMICAL PRODUCTS	6	2	3	1			
DIVISION TOTAL		121	27	69	12		1	12
07	TRANS., COMM. & OTHER UTILITIE							
0704	ELEC. POWER, GAS & WATER UTILI	2		2				
DIVISION TOTAL		2		2				
RIV-BASN TOTAL		144	41	76	14		1	12

WATER USE BY RIVER BASIN - ALBERTA 1972
WATER RECIRCULATED OR REUSED BY PURPOSE
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	YES& CORR	NO RECN	BLNK	YES& TOTL	YES& BKDN	YES& BLNK
GRAND	TOTAL	295	106	143	19		2	25

Item V - Monthly Totals - Tables 9, 10, 11, 12

This item provides a breakdown of water use by month, thus giving a consumption pattern over the year. This pattern is especially helpful for identification of seasonal users and industries, and is also usable determine the total demand by month rather than by year.

Responses to Item V were classified separately for intake and discharge as follows:

(a) Answered and Assumed to be correct - applies to questionnaires which were completely filled out, with different figures for each month.

(b) Blank - no figures provided in these cases.

(c) Partial - applies to questionnaires which indicate seasonal users, who only intake and/or discharge water for certain months of the year and not others.

(d) Same for each month - applies to responses which were equal for each month (i.e. each month is exactly one-twelfth of yearly figures).

For the months as a group, a further category was identified, "Intake Equals Discharge", where intake and discharge are equal for every month. Questionnaires in this listing are also counted in the "Answered and Assumed to be Correct" column.

In some industrial classifications, discrepancies result from firms providing only intake or discharge, but not both.

As shown by our example (mineral fuels, S.I.C. Code 0402) the following types of responses were received:

(a) Total questionnaires - 56

(b) Intake - correct - 43

(c) Intake - blank - 2

(d) Intake - partial - 1

(e) Intake - same for each month - 10

(f) Discharge - correct - 39

(g) Discharge - blank - 8

(h) Discharge - partial - 1

(i) Discharge - same for each month - 8

(j) Intake equals discharge - 9.

Table 9
WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
						INTAKE & DISCHARGE FOR							
04	MINES, QUARRIES & OIL WELLS												
0402	MINERAL FUELS												
0402-061	IN	46950	46950	46950	46950	46950	46950	46950	37710	37950	37950	37950	37950
	DIS	11500	11500	11500	11500	11500	11500	11000	11000	11500	11500	11500	11500
0402-064	IN	350518	346487	380735	388718	401276	420759	462318	498317	447665	433645	425306	416844
	DIS	203079	192476	209822	202166	207542	205693	238354	265006	236733	243948	249433	261720
MAJOR	TOT	397468	393437	427685	435668	448226	467709	509268	536027	485615	471595	463256	454794
		214579	203976	221322	213666	219142	217193	249354	276006	248233	255448	260933	273220
0403	NON-METAL MINING (EXCEPT COAL)												
0403-079	IN	102000	103000	98000	112000	148000	155000	148000	150000	152000	147000	151000	114000
	DIS	102000	103000	98000	112000	148000	155000	148000	150000	152000	147000	151000	114000
MAJOR	TOT	102000	103000	98000	112000	148000	155000	148000	150000	152000	147000	151000	114000
		102000	103000	98000	112000	148000	155000	148000	150000	152000	147000	151000	114000
0404	QUARRIES AND SAND PITS												
0404-087	IN	153	213	273	22383	23308	23403	23403	23403	23328	1648	803	198
	DIS	186037	184060	254063	283232	257251	260275	225276	224275	184242	216099	218096	234058
MAJOR	TOT	153	213	273	22383	23308	23403	23403	23403	23328	1648	803	198
		186037	184060	254063	283232	257251	260275	225276	224275	184242	216099	218096	234058
DIVISION	TOT	499621	496650	525958	570051	619534	646112	680671	709430	660943	620243	615059	568992
		502616	491036	573385	608898	624393	632468	622630	650281	584475	618547	630029	621278

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		INTAKE & DISCHARGE FOR JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
05	MANUFACTURING INDUSTRIES												
0501	FOOD AND BEVERAGES												
0501-101	IN	195954	202645	188370	187650	199749	214725	199454	223522	209529	208056	210237	193564
	DIS	180634	185673	173639	173280	183380	196816	183195	206028	191298	191890	193054	177827
0501-103	IN	16997	19073	13821	18215	19679	16963	12264	32022	30404	25435	16943	18007
	DIS	6257	7751	7643	6995	8436	9722	8965	23582	22818	15568	5208	6591
0501-104	IN	16538	15070	18123	20843	21395	26577	25040	26245	24902	21948	17576	18558
	DIS	14008	12932	15406	18062	19024	22283	20961	21497	20753	18569	14552	15826
0501-105	IN	328	214	220	261	275	348	279	250	359	350	274	260
	DIS	144	105	107	148	110	132	55	77	90	122	128	136
0501-106	IN	14699	11476	10427	13714	11624	12259	15073	13716	16349	11646	11924	13613
	DIS	14584	11361	10292	13569	11489	12164	14968	13601	16244	11561	11849	13538
0501-107	IN	944	981	1059	1042	1114	1133	1468	1396	1572	1330	1154	1089
	DIS	335	396	485	434	461	509	736	678	894	671	482	416
0501-108	IN	11822	12394	11586	14433	12503	11754	9084	9863	60779	209974	203129	210000
	DIS	8184	8920	8128	11024	9992	8289	5632	6312	56461	204129	197406	204237
0501-109	IN	74588	85088	93206	98627	99526	102840	109875	97561	120048	86909	82852	82285
	DIS	60506	71174	77649	77819	75972	85501	93518	77307	95589	66186	65572	66351
MAJOR	TOT	331870	346941	341812	354785	366465	386599	372537	404575	463942	565648	544089	537376
		284652	298312	293351	301331	308864	335416	328030	349082	404147	508696	488251	484922
0503	RUBBER AND PLASTICS PRODUCTS												
0503-162	IN	3898	6643	5439	7077	6541	5838	5575	4450	5478	4801	5939	6160
	DIS	3579	6222	4972	6600	6173	5297	5098	4226	5050	4360	5400	5630
0503-165	IN	345	377	459	366	442	361	373	527	1036	1699	1469	731
	DIS	345	377	459	366	442	361	373	527	1036	1699	1469	731
MAJOR	TOT	4243	7020	5898	7443	6983	6199	5948	4977	6514	6500	7408	6891
		3924	6599	5431	6966	6615	5658	5471	4753	6086	6059	6869	6361
0504	LEATHER INDUSTRIES												
0504-172	IN	3989	3228	3909	3849	4175	3817	2499	2543	4267	4130	4213	4217
	DIS	3989	3228	3909	3849	4175	3817	2499	2543	4267	4130	4213	4217
MAJOR	TOT	3989	3228	3909	3849	4175	3817	2499	2543	4267	4130	4213	4217
		3989	3228	3909	3849	4175	3817	2499	2543	4267	4130	4213	4217
0505	TEXTILES INDUSTRIES												
0505-183	IN	261	324	294	335	310	366	211	287	382	357	346	369
	DIS												

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		INTAKE & DISCHARGE FOR JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
05	MANUFACTURING INDUSTRIES												
0505	TEXTILES INDUSTRIES												
MAJOR	TOT	261	324	294	335	310	366	211	287	382	357	346	369
0507	CLOTHING INDUSTRIES												
0507-249	IN												
	DIS												
MAJOR	TOT												
0508	WOOD INDUSTRIES												
0508-251	IN	2784	2451	2522	2344	1940	2011	946	1990	2167	2024	2469	2200
	DIS	2772	2439	2510	2332	1927	1998	940	1977	2154	2011	2456	2187
0508-259	IN	860	625	550	800	750	340	345	845	850	895	800	455
	DIS	29	34	106	117	89	91	120	32	125	129	130	93
MAJOR	TOT	3644	3076	3072	3144	2690	2351	1291	2835	3017	2919	3269	2655
		2801	2473	2616	2449	2016	2089	1060	2009	2279	2140	2586	2280
0509	FURNITURE & FIXTURE INDUSTRIES												
0509-264	IN												
	DIS												
MAJOR	TOT												
0510	PAPER & ALLIED INDUSTRIES												
0510-271	IN	608000	611000	760000	592000	618000	804000	597000	641000	756000	559000	569000	803000
	DIS	519000	511000	681000	552000	513000	690000	524000	559000	715000	479000	521000	701000
0510-272	IN	14635	14528	15410	14312	15994	18132	13670	15970	22574	19942	14775	15816
	DIS	12938	12837	13712	12613	14296	16433	11972	14272	20876	18243	13078	14119
0510-273	IN	1406	1474	1463	1428	1614	1927	2293	2109	2273	2206	1890	1615
	DIS	544	622	581	597	641	783	1072	903	1066	1009	668	517
0510-274	IN	136	183	135	191	161	167	163	162	163	170	151	161
	DIS												
MAJOR	TOT	624177	627185	777008	607931	635769	824226	613126	659241	781010	581318	585816	820592
		532482	524459	695293	565210	527937	707216	537044	574175	736942	498252	534746	715636
0511	PRINT, PUBLISH, & ALLIED INDUS												

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		INTAKE & DISCHARGE FOR JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
05	MANUFACTURING INDUSTRIES												
0511	PRINT, PUBLISH, & ALLIED INDUS												
0511-289	IN	516	748	740	647	940	1306	1041	1246	1296	934	730	712
	DIS												
MAJOR	TOT	516	748	740	647	940	1306	1041	1246	1296	934	730	712
0512	PRIMARY METAL INDUSTRIES												
0512-291	IN	47	27	13	13	68	68	481	78	145	155	53	62
	DIS	47	27	13	13	68	68	481	78	145	155	53	62
0512-292	IN	2379	3320	4001	5427	5046	5921	6630	4685	4107	3161	3219	2485
	DIS	2266	2961	3734	4994	4654	5483	5691	4031	4034	3089	2702	2147
0512-294	IN	2369	2584	2467	2230	2762	2789	2964	4102	4380	3026	3039	2803
	DIS	2217	2403	2298	2046	2578	2563	2760	3820	4149	2837	2872	2608
0512-295	IN	61055	64677	72040	62130	75000	77300	83907	73758	74858	73739	71898	69779
	DIS												
0512-296	IN	1825	1789	2384	2997	3296	4693	3827	3969	3600	2610	2174	2075
	DIS	1753	1717	2312	2925	3224	4621	3755	3897	3528	2538	2102	2003
0512-298	IN	100	111	113	107	138	138	90	97	136	161	102	126
	DIS	41	46	47	44	57	57	37	40	56	67	42	52
MAJOR	TOT	67775	72508	81018	72904	86310	90909	97899	86689	87226	82852	80485	77330
		6324	7154	8404	10022	10581	12792	12724	11866	11912	8686	7771	6872
0513	METAL FABRICATING INDUSTRIES												
0513-302	IN	18039	21086	20981	26878	27169	28380	29583	30904	33329	24116	22880	21666
	DIS	10325	13346	13535	18339	19354	20479	21994	22914	25137	16441	15983	14287
0513-304	IN	192	186	184	197	190	209	249	224	276	235	243	186
	DIS	141	135	133	146	139	158	198	173	225	184	192	135
0513-305	IN	393	342	366	343	359	490	401	491	153	280	233	349
	DIS	393	342	366	343	359	490	401	491	153	280	233	349
0513-309	IN	53	73	123	173	133	153	93	63	53	28	18	38
	DIS	53	73	123	173	133	153	93	63	53	28	18	38
MAJOR	TOT	18677	21687	21654	27591	27851	29232	30326	31682	33811	24659	23374	22239
		10912	13896	14157	19001	19985	21280	22686	23641	25568	16933	16426	14809
0514	MACHINERY INDUSTRIES												
0514-315	IN												
	DIS												

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		INTAKE & DISCHARGE FOR JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
05	MANUFACTURING INDUSTRIES												
0514	MACHINERY INDUSTRIES												
MAJOR	TOT												
0515	TRANSPORTATION EQUIP. INDUSTR												
0515-324	IN	104	104	115	127	148	137	144	160	121	108	129	136
	DIS	88	88	98	108	126	116	122	136	103	92	110	116
0515-325	IN	743	759	587	606	652	877	697	671	709	665	673	606
	DIS	743	759	587	606	652	877	697	671	709	665	673	606
0515-326	IN	8346	9965	9165	5588	7390	9556	6768	4839	9806	8769	8344	5809
	DIS	7406	9115	8511	4642	6578	8830	5942	3924	8897	8031	7578	4939
MAJOR	TOT	9193	10828	9867	6321	8190	10580	7609	5670	10636	9542	9146	6551
		8237	9962	9196	5356	7356	9823	6761	4731	9709	8788	8361	5661
0516	ELECTRICAL PRODUCTS INDUSTRIES												
0516-338	IN	2048	2287	2927	2785	2694	3421	1184	1862	2516	1704	1816	2562
	DIS	2048	2287	2927	2785	2694	3421	1184	1862	2516	1704	1816	2562
0516-339	IN	4250	3812	4275	3855	4085	4845	2664	4814	5772	5253	5573	4940
	DIS	4200	3763	4223	3807	4038	4792	2638	4775	5722	5211	5528	4895
MAJOR	TOT	6298	6099	7202	6640	6779	8266	3848	6676	8288	6957	7389	7502
		6248	6050	7150	6592	6732	8213	3822	6637	8238	6915	7344	7457
0517	NON-METALLIC MINERAL PRODUCTS												
0517-351	IN	1136	942	1090	871	1029	884	1330	670	1263	979	1223	998
	DIS	823	675	805	646	748	641	964	488	918	716	900	734
0517-352	IN	15094	15200	15735	21542	22613	22328	22829	22566	21268	22047	18386	15409
	DIS	3134	2964	3134	3049	3081	3321	3292	3652	3312	3680	3394	2915
0517-354	IN	2606	2687	5756	10226	10401	10924	10668	11287	11454	8310	5333	4190
	DIS	634	630	3498	6909	7029	7236	7338	7209	7221	4262	1018	914
0517-355	IN	1988	1788	2638	3048	76942	78091	75843	78077	74314	75005	4632	2495
	DIS	142	166	214	289	72720	73759	71785	73476	70047	70684	1599	202
0517-356	IN	1620	1820	2140	2170	2120	2380	3250	5250	4780	3920	4170	4140
	DIS	490	690	1010	1050	1000	1250	2100	4100	3650	2800	3050	3010
0517-358	IN	8941	8941	8941	8941	8941	8941	8941	8941	8941	8941	8941	8941
	DIS	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190	2190
0517-359	IN	1443	1443	1443	1443	1443	1443	1443	1443	1443	1443	1443	1443
	DIS												

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		INTAKE & DISCHARGE FOR JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
05	MANUFACTURING INDUSTRIES												
0517	NON-METALLIC MINERAL PRODUCTS												
MAJOR	TOT	32828	32821	37743	48241	123489	124991	124304	128234	123463	120645	44128	37616
		7413	7315	10851	14133	86768	88397	87669	91115	87338	84332	12151	9965
0518	PETROLEUM AND COAL PRODUCTS												
0518-365	IN	660300	691100	728600	643800	694100	698700	729000	754800	752800	672100	621200	668400
	DIS	555150	524330	574630	574370	632880	649380	687500	763070	697150	627520	546550	529710
0518-369	IN	75602	85076	100216	67968	79341	64789	69291	62877	61257	35918	34063	39054
	DIS	68341	77881	93180	62159	73282	61840	60072	58755	53931	28731	29093	31820
MAJOR	TOT	735902	776176	828816	711768	773441	763489	798291	817677	814057	708018	655263	707454
		623491	602211	667810	636529	706162	711220	747572	821825	751081	656251	575643	561530
0519	CHEMICAL & CHEMICAL PRODUCTS												
0519-372	IN	108300	100300	108300	117300	123300	118300	110300	105300	39300	106300	107300	107300
	DIS	35200	32200	36200	41200	46200	51200	51200	37200	35200	32200	31200	33200
0519-373	IN	12188	10986	11707	13013	13694	13390	14093	14481	12528	13399	14329	12350
	DIS	2085	2580	3090	3493	3587	3935	4438	4483	3105	2993	5505	3868
0519-378	IN	368257	352624	374899	357821	376955	368751	381800	378324	354088	368184	362519	378753
	DIS	274160	259191	275068	266233	271628	268396	279224	274345	252449	257729	250845	273112
0519-379	IN	29685	27534	33185	42741	33020	33418	45925	38774	44878	35085	35436	30614
	DIS	23528	21884	26467	33943	25905	26340	35984	30460	35376	27530	27699	23966
MAJOR	TOT	518430	491444	528091	530875	546969	533859	552118	536879	450794	522968	519584	529017
		334973	315855	340825	344869	347420	349871	370846	346488	326130	320452	315249	334146
0520	MISC. MANUFACTURING IND.												
0520-399	IN	3107	3058	3317	1873	4549	6963	7799	7581	4658	2819	2466	1494
	DIS												
MAJOR	TOT	3107	3058	3317	1873	4549	6963	7799	7581	4658	2819	2466	1494
DIVISION	TOT	2360910	2403143	2650441	2384347	2594910	2793153	2618847	2696792	2793361	2640266	2487706	2762015
		1825446	1797514	2058993	1916307	2034511	2255792	2126184	2238865	2373697	2121634	1979610	2153856

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		JAN	FEB	MAR	APR	MAY	INTAKE & DISCHARGE FOR JUN	JUL	AUG	SEP	OCT	NOV	DEC
07	TRANS., COMM. & OTHER UTILITIE												
0704	ELEC. POWER, GAS & WATER UTILI												
0704-972	IN	20730000	19953000	20438000	23216000	29376000	27215000	25859000	26969000	27372115	24912826	19512115	22498230
	DIS	20709000	19932000	20417000	23190000	29355000	27194000	25838000	26943000	27342093	24866265	19482093	22459187
MAJOR	TOT	20730000	19953000	20438000	23216000	29376000	27215000	25859000	26969000	27372115	24912826	19512115	22498230
		20709000	19932000	20417000	23190000	29355000	27194000	25838000	26943000	27342093	24866265	19482093	22459187
DIVISION	TOT	20730000	19953000	20438000	23216000	29376000	27215000	25859000	26969000	27372115	24912826	19512115	22498230
		20709000	19932000	20417000	23190000	29355000	27194000	25838000	26943000	27342093	24866265	19482093	22459187

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		JAN	FEB	MAR	APR	MAY	INTAKE & DISCHARGE FOR JUN	JUL	AUG	SEP	OCT	NOV	DEC
GRAND	TOT	23590531	22852793	23614399	26170398	32590444	30654265	29158518	30375222	30826419	28173335	22614880	25829237
		23037052	22220550	23049373	25715205	32014004	30082260	28586814	29832146	30300265	27606446	22091732	25234321

Table 10
WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
MONTHLY TOTALS - INTAKE &DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	INTK CORR	INTK BLNK	INTK PRTL	INTK SAME	DIS CORR	DIS BLNK	DIS PRTL	DIS SAME	IN = DIS
04	MINES,QUARRIES & OIL WELLS										
0402	MINERAL FUELS	56	43	2	1	10	39	8	1	8	9
0403	NON-METAL MINING (EXCEPT COAL)	1	1				1				1
0404	QUARRIES AND SAND PITS	6	4	1		1	5	1			1
DIVISION TOTAL		63	48	3	1	11	45	9	1	8	11
05	MANUFACTURING INDUSTRIES										
0501	FOOD AND BEVERAGES	87	63	15		9	53	28		6	29
0503	RUBBER AND PLASTICS PRODUCTS	5	5				5				4
0504	LEATHER INDUSTRIES	1	1				1				1
0505	TEXTILES INDUSTRIES	1	1					1			
0507	CLOTHING INDUSTRIES	1		1				1			1
0508	WOOD INDUSTRIES	5	4	1			3	2			1
0509	FURNITURE & FIXTURE INDUSTRIES	1		1				1			1
05.0	PAPER & ALLIED INDUSTRIES	10	9	1			6	4			
05.1	PRINT, PUBLISH, & ALLIED INDUS	2	2				1	1			
0512	PRIMARY METAL INDUSTRIES	12	12				11	1			4
0513	METAL FABRICATING INDUSTRIES	10	7	3			5	5			8
0514	MACHINERY INDUSTRIES	1		1				1			1
0515	TRANSPORTATION EQUIP. INDUSTR	4	4				4				1
0516	ELECTRICAL PRODUCTS INDUSTRIES	5	4	1			4	1			4
0517	NON-METALLIC MINERAL PRODUCTS	46	36	3	4	3	33	7	4	2	5
0518	PETROLEUM AND COAL PRODUCTS	9	6	2		1	5	1	2	1	1
0519	CHEMICAL & CHEMICAL PRODUCTS	22	17	2		3	16	3		3	5
0520	MISC. MANUFACTURING IND.	1	1					1			
DIVISION TOTAL		223	172	31	4	16	147	58	6	12	66
07	TRANS., COMM. & OTHER UTILITIE										
0702	ELEC. POWER, GAS & WATER UTILI	9	7	1	1		7	1	1		4
DIVISION TOTAL		9	7	1	1		7	1	1		4

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972

MONTHLY TOTALS - INTAKE &DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	INTK CORR	INTK BLNK	INTK PRTL	INTK SAME	DIS CORR	DIS BLNK	DIS PRTL	DIS SAME	IN = DIS
GRAND	TOTAL	295	227	35	6	27	199	68	8	20	81

Table 11
WATER USE BY RIVER BASIN - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
						INTAKE & DISCHARGE FOR							
BASIN 01 PEACE													
04	MINES,QUARRIES & OIL WELLS												
0402	IN	77123	74793	87659	88867	107459	116248	145754	161838	126914	118375	128272	135197
	DIS	53561	51235	51645	47091	57173	60675	88428	104516	71340	76597	92263	111666
DIVISION TOT		77123	74793	87659	88867	107459	116248	145754	161838	126914	118375	128272	135197
		53561	51235	51645	47091	57173	60675	88428	104516	71340	76597	92263	111666
05	MANUFACTURING INDUSTRIES												
0501	IN	952	952	998	998	1110	1110	1037	1037	1089	1089	1084	1084
	DIS	893	893	925	925	1004	1004	953	953	989	989	985	985
0508	IN	1753	1753	1706	1706	1191	1191	208	1191	1308	1308	1451	1451
	DIS	1741	1741	1694	1694	1178	1178	202	1178	1295	1295	1438	1438
0517	IN	715	215	227	324	373	475	521	669	580	483	420	586
	DIS	3	8	9	8	15	20	27	30	16	18	9	12
DIVISION TOT		3420	2920	2931	3028	2674	2776	1766	2897	2977	2880	2955	3121
		2637	2642	2628	2627	2197	2202	1182	2161	2300	2302	2432	2435
07	TRANS., COMM. & OTHER UTILITIE												
0704	IN									9115	25826	9115	18230
	DIS									93	265	93	187
DIVISION TOT										9115	25826	9115	18230
										93	265	93	187
RIV-BASN TOT		80543	77713	90590	91895	110133	119024	147520	164735	139006	147081	140342	156548
		56198	53877	54273	49718	59370	62877	89610	106677	73733	79164	94788	114288

WATER USE BY RIVER BASIN - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
						INTAKE & DISCHARGE FOR							
BASIN 02 ATHABASCA													
04 MINES, QUARRIES & OIL WELLS													
0402	IN	108675	115946	123041	127379	113140	127024	133433	129256	135114	133079	125160	117757
	DIS	51317	48960	54775	55880	39978	56290	56927	60521	64840	69736	62441	58109
0404	IN												
	DIS	186000	184000	254000	281000	255000	258000	223000	222000	182000	216000	218000	234000
DIVISION TOT		108675	115946	123041	127379	113140	127024	133433	129256	135114	133079	125160	117757
		237317	232960	308775	336880	294978	314290	279927	282521	246840	285736	280441	292109
05 MANUFACTURING INDUSTRIES													
0501	IN												
	DIS												
0510	IN	608000	611000	760000	592000	618000	804000	597000	641000	756000	559000	569000	803000
	DIS	519000	511000	681000	552000	513000	690000	524000	559000	715000	479000	521000	701000
DIVISION TOT		608000	611000	760000	592000	618000	804000	597000	641000	756000	559000	569000	803000
		519000	511000	681000	552000	513000	690000	524000	559000	715000	479000	521000	701000
RIV-BASN TOT		716675	726946	883041	719379	731140	931024	730433	770256	891114	692079	694160	920757
		756317	743960	989775	888880	807978	1004290	803927	841521	961840	764736	801441	993109

WATER USE BY RIVER BASIN - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		INTAKE & DISCHARGE FOR JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
BASIN 03 NORTH SASK													
04 MINES, QUARRIES & OIL WELLS													
0402	IN	72459	68180	72236	73043	77335	76559	78666	81152	77685	75949	73749	71066
	DIS	47227	43848	46937	46257	55032	49008	49376	49749	50091	47662	46230	46288
0403	IN	102000	103000	98000	112000	148000	155000	148000	150000	152000	147000	151000	114000
	DIS	102000	103000	98000	112000	148000	155000	148000	150000	152000	147000	151000	114000
0404	IN	23	43	43	43	53	73	73	73	43	63	63	43
	DIS	20	40	40	40	50	70	70	70	40	60	60	40
DIVISION TOT		174482	171223	170279	185086	225388	231632	226739	231225	229728	223012	224812	185109
		149247	146888	144977	158297	203082	204078	197446	199819	202131	194722	197290	160328
05 MANUFACTURING INDUSTRIES													
0501	IN	109117	117722	107498	108872	116405	130133	129256	137770	136932	116410	121843	109476
	DIS	92408	99179	90380	91950	97857	108570	109564	115876	115208	97807	102383	91441
0503	IN	7	7	6	10	10	13	12	13	12	8	4	6
	DIS	7	7	6	10	10	13	12	13	12	8	4	6
0504	IN	3989	3228	3909	3849	4175	3817	2499	2543	4267	4130	4213	4217
	DIS	3989	3228	3909	3849	4175	3817	2499	2543	4267	4130	4213	4217
0505	IN	261	324	294	335	310	366	211	287	382	357	346	369
	DIS												
0507	IN												
	DIS												
0508	IN	382	368	277	284	279	263	223	281	276	290	451	362
	DIS	411	402	383	401	368	354	343	313	401	419	581	455
0510	IN	919	1038	1126	1208	1340	1199	1232	1211	1377	1283	1196	991
	DIS	422	547	628	709	842	700	744	713	879	784	699	494
0512	IN	62947	67632	75678	67394	80196	83220	90706	78232	78475	77121	75278	72556
	DIS	1741	2606	3321	4765	4710	5375	5753	3660	3417	3232	2801	2361
0513	IN	17556	20576	20520	25966	26325	27700	29288	30164	32468	23480	22500	21165
	DIS	9791	12785	13023	17376	18459	19748	21648	22123	24225	15754	15552	13735
0515	IN	1464	1432	1278	1238	1185	1229	1265	1377	1440	1338	1538	1559
	DIS	1153	1092	978	950	912	945	972	1058	1101	1022	1157	1174
0517	IN	8613	9678	9993	16833	18293	19025	20292	22079	20941	20552	16613	12444
	DIS	1568	1759	2064	2314	2757	3576	4392	6619	5982	5405	4770	4096
0518	IN	181533	182926	182232	169100	173226	175764	183196	178847	178573	166929	171007	187193
	DIS	124715	125878	146970	130032	126867	132667	136614	141962	134305	138729	134448	132772
0519	IN	402060	379570	408033	402524	423750	414909	414099	411971	331355	405443	396874	410032
	DIS	257580	241980	260366	257870	264547	270366	276268	262292	246315	242136	232858	254612

WATER USE BY RIVER BASIN - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
						INTAKE & DISCHARGE FOR							
BASIN 03 NORTH SASK													
05 MANUFACTURING INDUSTRIES													
0520	IN	3107	3058	3317	1873	4549	6963	7799	7581	4658	2819	2466	1494
	DIS												
DIVISION TOT		791955	787609	814161	799486	850043	864601	880078	872356	791156	820160	814329	821864
		493785	489463	522028	510226	521504	546131	558809	557172	536112	509426	499466	505363
07 TRANS., COMM. & OTHER UTILITIE													
0704	IN	20314000	19537000	20022000	22805000	28985000	26834000	25508000	26618000	27002000	24484000	19092000	22054000
	DIS	20294000	19517000	20002000	22780000	28965000	26814000	25488000	26593000	26982000	24464000	19072000	22044000
DIVISION TOT		20314000	19537000	20022000	22805000	28985000	26834000	25508000	26618000	27002000	24484000	19092000	22064000
		20294000	19517000	20002000	22780000	28965000	26814000	25488000	26593000	26982000	24464000	19072000	22044000
RIV-BASN TOT		21280437	20495832	21006440	23789572	30060431	27930233	26614817	27721581	28022884	25527172	20131141	23070973
		20937032	20153351	20669005	23448523	29689586	27564209	26244255	27349991	27720243	25168148	19768756	22709691

WATER USE BY RIVER BASIN - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
						INTAKE & DISCHARGE FOR							
BASIN 04 RED DEER													
04	MINES, QUARRIES & OIL WELLS												
0402	IN	38427	35248	38947	35463	40092	27099	32607	36648	30465	33209	36275	36192
	DIS	28667	26190	29907	29594	31294	18666	23313	29387	25859	26149	25904	25944
DIVISION TOT		38427	35248	38947	35463	40092	27099	32607	36648	30465	33209	36275	36192
		28667	26190	29907	29594	31294	18666	23313	29387	25859	26149	25904	25944
05	MANUFACTURING INDUSTRIES												
0501	IN	15565	9946	16636	19109	17445	19915	19018	19299	19536	18945	15846	18268
	DIS	14957	9734	16232	18804	16979	19518	18660	18938	19222	18584	15520	18061
0517	IN	14	54	49	54	83	91	101	149	107	102	70	39
	DIS	2	8	8	8	13	14	15	22	17	15	11	6
0518	IN												
	DIS												
DIVISION TOT		15579	10000	16685	19163	17528	20006	19119	19448	19643	19047	15916	18307
		14959	9742	16240	18812	16992	19532	18675	18960	19239	18599	15531	18067
RIV-BASN TOT		54006	45248	55632	54626	57620	47105	51726	56096	50108	52256	52191	54499
		43626	35932	46147	48406	48286	38198	41988	48347	45098	44748	41435	44011

WATER USE BY RIVER BASIN - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
						INTAKE & DISCHARGE FOR							
BASIN 05 SOUTH SASK													
04 MINES, QUARRIES & OIL WELLS													
0402	IN	100784	99270	105302	110916	110200	120779	118808	127133	115437	110983	99800	94582
	DIS	33807	33743	38058	34844	35665	32554	31310	31833	36103	35304	34095	31213
0404	IN	130	170	230	22340	23255	23330	23330	23330	23285	1585	740	155
	DIS	17	20	23	2192	2201	2205	2206	2205	2202	39	36	18
DIVISION TOT		100914	99440	106032	133256	133455	144109	142138	150463	138722	112568	100540	94737
		33824	33763	38081	37036	37866	34759	33516	34038	38305	35343	34131	31231
05 MANUFACTURING INDUSTRIES													
0501	IN	206236	218321	216630	225805	231505	235441	223226	246469	306385	429204	405316	408548
	DIS	176394	188506	185814	189652	193024	206324	198853	213315	268728	391316	369363	374435
0503	IN	4236	7013	5892	7433	6973	6186	5936	4964	6502	6492	7404	6885
	DIS	3917	6592	5425	6956	6605	5645	5459	4740	6074	6051	6865	6355
0508	IN	1509	955	1089	1154	1220	897	860	1363	1433	1321	1367	842
	DIS	649	330	539	354	470	557	515	518	583	426	567	387
0509	IN												
	DIS												
0510	IN	15258	15147	15882	14723	16429	19027	14894	17030	23633	21035	15620	16601
	DIS	13060	12912	13665	12501	14095	16516	12300	14462	21063	18468	13047	14142
0511	IN	516	748	740	647	940	1306	1041	1246	1296	934	730	712
	DIS												
0512	IN	4828	4826	5340	5510	6114	7689	7193	8457	8751	5731	5207	4774
	DIS	4583	4548	5083	5257	5871	7417	6971	8206	8495	5454	4970	4511
0513	IN	1121	1111	1134	1625	1526	1532	1038	1518	1343	1179	874	1074
	DIS	1121	1111	1134	1625	1526	1532	1038	1518	1343	1179	874	1074
0514	IN												
	DIS												
0515	IN	7729	9396	8589	5083	7005	9351	6344	4293	9196	8204	7608	4992
	DIS	7084	8870	8218	4405	6444	8878	5789	3673	8608	7766	7204	4487
0516	IN	6298	6099	7202	6640	6779	8266	3848	6676	8288	6957	7389	7502
	DIS	6248	6050	7150	6592	6732	8213	3822	6637	8238	6915	7344	7457
0517	IN	23486	22874	27474	31030	104740	105400	103390	105337	101835	99508	27025	24547
	DIS	5840	5540	8770	11803	83983	84787	83235	84444	81323	78894	7361	5851
0518	IN	554369	593250	546584	542668	600215	587725	615095	638830	635484	541089	484256	520261
	DIS	498776	476333	520840	506497	579295	578553	610958	679863	616776	517522	441195	428758
0519	IN	116370	111874	120058	128351	123219	118950	138019	124908	119439	117525	122710	118985
	DIS	77393	73875	80459	86999	82873	79505	94578	84196	79815	78316	82391	79534

WATER USE BY RIVER BASIN - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
						INTAKE & DISCHARGE FOR							
BASIN 05 SOUTH SASK													
05 MANUFACTURING INDUSTRIES													
DIVISION TOT		941956	991614	1056664	970670	1106665	1101770	1120884	1161091	1223585	1239179	1085506	1115723
		795065	784667	837097	832642	980918	997927	1023518	1101572	1101046	1112307	941181	926991
07 TRANS., COMM. & OTHER UTILITIE													
0704	IN	416000	416000	415000	411000	391000	381000	351000	351000	361000	403000	411000	416000
	DIS	415000	415000	415000	410000	390000	380000	350000	350000	360000	402000	410000	415000
DIVISION TOT		416000	416000	416000	411000	391000	381000	351000	351000	361000	403000	411000	416000
		415000	415000	415000	410000	390000	380000	350000	350000	360000	402000	410000	415000
RIV-BASN TOT		1458870	1507054	1573696	1514926	1631120	1626879	1614022	1662554	1723307	1754747	1597046	1626460
		1243889	1233430	1290178	1279678	1408784	1412686	1407034	1485610	1499351	1549650	1385312	1373222

WATER USE BY RIVER BASIN - ALBERTA 1972
MONTHLY WATER USAGE
(THOUSANDS OF GALLONS)

SIC CODE		INTAKE & DISCHARGE FOR JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
GRAND	TOT	23590531	22852793	23614399	26170398	32590444	30654265	29158518	30375222	30826419	28173335	22614880	25829237
		23037062	22220550	23049378	25715205	32014004	30082260	28586814	29832146	30300265	27606446	22091732	25234321

Table 12
WATER USE BY RIVER BASIN - ALBERTA 1972
MONTHLY TOTALS - INTAKE &DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 01 PEACE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	INTK CORR	INTK BLNK	INTK PRTL	INTK SAME	DIS CORR	DIS BLNK	DIS PRTL	DIS SAME	IN = DIS
04	MINES,QUARRIES & OIL WELLS										
0402	MINERAL FUELS	9	7			2	7	1		1	2
DIVISION TOTAL		9	7			2	7	1		1	2
05	MANUFACTURING INDUSTRIES										
0501	FOOD AND BEVERAGES	2	1			1	1			1	1
0503	WOOD INDUSTRIES	1	1				1				
0517	NON-METALLIC MINERAL PRODUCTS	3	3				2	1			
DIVISION TOTAL		6	5			1	4	1		1	1
07	TRANS., COMM. & OTHER UTILITIE										
0704	ELEC. POWER, GAS & WATER UTILI	2	1		1		1		1		1
DIVISION TOTAL		2	1		1		1		1		1
RIV-BASN TOTAL		17	13		1	3	12	2	1	2	4

WATER USE BY RIVER BASIN - ALBERTA 1972
MONTHLY TOTALS - INTAKE &DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 02 ATHABASCA

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL CUES	INTK CORR	INTK BLNK	INTK PRTL	INTK SAME	DIS CORR	DIS BLNK	DIS PRTL	DIS SAME	IN = DIS
04	MINES,QUARRIES & OIL WELLS										
0402	MINERAL FUELS	7	5			2	4	2		1	2
0404	QUARRIES AND SAND PITS	1		1			1				
DIVISION TOTAL		8	5	1		2	5	2		1	2
05	MANUFACTURING INDUSTRIES										
0501	FOOD AND BEVERAGES	1		1				1			1
0510	PAPER & ALLIED INDUSTRIES	1	1				1				
DIVISION TOTAL		2	1	1			1	1			1
RIV-BASN TOTAL		10	6	2		2	6	3		1	3

WATER USE BY RIVER BASIN - ALBERTA 1972
MONTHLY TOTALS - INTAKE &DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 03 NORTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	INTK CORR	INTK BLNK	INTK PRTL	INTK SAME	DIS CORR	DIS BLNK	DIS PRTL	DIS SAME	IN = DIS
04	MINES,QUARRIES & OIL WELLS										
0402	MINERAL FUELS	12	11			1	9	2		1	
0403	NON-METAL MINING (EXCEPT COAL)	1	1				1				1
0404	QUARRIES AND SAND PITS	2	1			1	1	1			1
DIVISION TOTAL		15	13			2	11	3		1	2
05	MANUFACTURING INDUSTRIES										
0501	FOOD AND BEVERAGES	25	22	2		1	18	5		2	6
0503	RUBBER AND PLASTICS PRODUCTS	1	1				1				1
0504	LEATHER INDUSTRIES	1	1				1				1
0505	TEXTILES INDUSTRIES	1	1					1			
0507	CLOTHING INDUSTRIES	1		1				1			1
0508	WOOD INDUSTRIES	2	1	1			1	1			
0510	PAPER & ALLIED INDUSTRIES	3	3				2	1			
0512	PRIMARY METAL INDUSTRIES	5	5				4	1			2
0513	METAL FABRICATING INDUSTRIES	6	4	2			2	4			4
0515	TRANSPORTATION EQUIP. INDUSTR	2	2				2				
0517	NON-METALLIC MINERAL PRODUCTS	15	11	2	1	1	11	2	1	1	2
0518	PETROLEUM AND COAL PRODUCTS	5	3	1		1	3	1		1	1
0519	CHEMICAL & CHEMICAL PRODUCTS	16	14			2	13	1		2	3
0520	MISC. MANUFACTURING IND.	1	1					1			
DIVISION TOTAL		84	69	9	1	5	58	19	1	6	21
07	TRANS., COMM. & OTHER UTILITIE										
070-	ELEC. POWER, GAS & WATER UTILI	5	5				5				2
DIVISION TOTAL		5	5				5				2
RIV-BASN TOTAL		104	87	9	1	7	74	22	1	7	25

WATER USE BY RIVER BASIN - ALBERTA 1972
MONTHLY TOTALS - INTAKE &DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 04 RED DEER

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	INTK CORR	INTK BLNK	INTK PRTL	INTK SAME	DIS CORR	DIS BLNK	DIS PRTL	DIS SAME	IN = DIS
04	MINES,QUARRIES & OIL WELLS										
0402	MINERAL FUELS	10	9			1	8		1	1	2
DIVISION TOTAL		10	9			1	8		1	1	2
05	MANUFACTURING INDUSTRIES										
0501	FOOD AND BEVERAGES	7	6	1			6	1			4
0517	NON-METALLIC MINERAL PRODUCTS	2	2				2				
0518	PETROLEUM AND COAL PRODUCTS	1		1					1		
DIVISION TOTAL		10	8	2			8	1	1		4
RIV-BASN TOTAL		20	17	2		1	16	1	2	1	6

WATER USE BY RIVER BASIN - ALBERTA 1972

MONTHLY TOTALS - INTAKE &DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 05 SOUTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	INTK CORR	INTK BLNK	INTK PRTL	INTK SAME	DIS CORR	DIS BLNK	DIS PRTL	DIS SAME	IN = DIS
04	MINES,QUARRIES & OIL WELLS										
0402	MINERAL FUELS	18	11	2	1	4	11	3		4	3
0404	QUARRIES AND SAND PITS	3	3				3				
DIVISION TOTAL		21	14	2	1	4	14	3		4	3
05	MANUFACTURING INDUSTRIES										
050.	FOOD AND BEVERAGES	52	34	11		7	28	21		3	17
0503	RUBBER AND PLASTICS PRODUCTS	4	4				4				3
0508	WOOD INDUSTRIES	2	2				1	1			1
0509	FURNITURE & FIXTURE INDUSTRIES	1		1				1			1
0510	PAPER & ALLIED INDUSTRIES	6	5	1			3	3			
0511	PRINT, PUBLISH, & ALLIED INDUS	2	2				1	1			
0512	PRIMARY METAL INDUSTRIES	7	7				7				2
0513	METAL FABRICATING INDUSTRIES	4	3	1			3	1			4
0514	MACHINERY INDUSTRIES	1		1				1			1
0515	TRANSPORTATION EQUIP. INDUSTR	2	2				2				1
0516	ELECTRICAL PRODUCTS INDUSTRIES	5	4	1			4	1			4
0517	NON-METALLIC MINERAL PRODUCTS	26	20	1	3	2	18	4	3	1	3
0518	PETROLEUM AND COAL PRODUCTS	3	3				2		1		
0519	CHEMICAL & CHEMICAL PRODUCTS	6	3	2		1	3	2		1	2
DIVISION TOTAL		121	89	19	3	10	76	36	4	5	39
07	TRANS., COMM. & OTHER UTILITIE										
0704	ELEC. POWER, GAS & WATER UTILI	2	1	1			1	1			1
DIVISION TOTAL		2	1	1			1	1			1
RIV-BASN TOTAL		144	104	22	4	14	91	40	4	9	43

WATER USE BY RIVER BASIN - ALBERTA 1972
MONTHLY TOTALS - INTAKE &DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	INTK CORR	INTK BLNK	INTK PRTL	INTK SAME	DIS CORR	DIS BLNK	DIS PRTL	DIS SAME	IN = DIS
GRAND	TOTAL	295	227	35	6	27	199	68	8	20	81

Item VI Yearly Totals, 1968 to 1971 - Tables 13, 14, 15

Data from yearly totals is useful in identifying trends in water use by industrial groups and/or by river basin. Unfortunately, this item was not answered very well. This is mainly because of the lack of records on the part of the firms surveyed. This is indicated by the summary of the questionnaire responses. The responses to this item were broken down by year, for intake and discharge. River basin breakdowns have been omitted for this item due to the weak data base (see the Response Summary, Table 15). Responses were grouped as follows:

(a) Answered and Assumed to be correct - this applies to figures provided for any given year.

(b) Blank - self explanatory.

As well as the above classifications, intake and discharge were grouped as being either "same", where intake or discharge was the same for all years, or "different", where intake or discharge were different for all years reported (1968 to 1971). In years where intake and discharge were equal, this has been noted as I = D.

The response summmry for this item is spread over two pages, due to the large number of codes reported. In the case of our example (mineral fuels, S.I.C. Code 0402) the following responses were recorded for Table 14:

(a) Total questionnaires - 56

(b) Intake for 1968 - Answered and assumed to be correct - 33

(c) Intake for 1968 - blank - 20

(d) Discharge for 1968 - Answered and assumed to be correct - 31

(e) Discharge for 1968 - blank - 22.

The above codes are shown for all years 1968-1971.

(f) Intake - same for all years - 14

(g) Intake - Different for all years - 42

(h) Discharge - same for all years - 16

(i) Discharge - different for all years - 40

(j) Intake Equals Discharge for:

1968 - 3
1969 - 3
1970 - 4
1971 - 4

Table 13
WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
WATER USE HISTORY - 1968 THROUGH 1972
(MILLIONS OF GALLONS)

SIC CODE	STANDARD CLASSIFICATION NAME		INTAKE & DISCHARGE FOR 1968	1969	1970	1971	1972
04	MINES, QUARRIES & OIL WELLS						
0402	MINERAL FUELS						
0402-061	COAL MINES	IN-TAKE	18	18	218	517	528
		DISCHRG	13	13	63	137	287
0402-064	CRUDE PETR. & NATURAL GAS IND.	IN-TAKE	1954	2879	3174	3751	4971
		DISCHRG	834	1354	1809	2096	2732
MAJOR	TOTAL		1972	2897	3392	4268	5499
			847	1367	1872	2233	3019
0403	NON-METAL MINING (EXCEPT COAL)						
0403-079	MISC. NONMETAL MINES	IN-TAKE	1727	1634	1563	1494	1580
		DISCHRG	1727	1634	1563	1494	1580
MAJOR	TOTAL		1727	1634	1563	1494	1580
			1727	1634	1563	1494	1580
0404	QUARRIES AND SAND PITS						
0404-087	SAND PITS OR QUARRIES	IN-TAKE	3740	4640	5743	6240	6240
		DISCHRG	1612	2012	2512	2712	2772
MAJOR	TOTAL		3740	4640	5743	6240	6240
			1612	2012	2512	2712	2772
DIVISION TOTAL			7439	9171	10698	12002	13319
			4186	5013	5947	6439	7371

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
WATER USE HISTORY - 1968 THROUGH 1972
(MILLIONS OF GALLONS)

SIC CODE	STANDARD CLASSIFICATION NAME		INTAKE & DISCHARGE FOR 1968	1969	1970	1971	1972
05	MANUFACTURING INDUSTRIES						
0501	FOOD AND BEVERAGES						
0501-101	MEAT AND POULTRY PRODUCTS	IN-TAKE	774	831	1265	1411	2518
		DISCHRG	680	730	965	1062	1706
0501-103	FRUIT AND VEG PROCESSING PLANT	IN-TAKE	76	112	105	168	252
		DISCHRG	55	81	86	141	208
0501-104	DAIRY PRODUCTS	IN-TAKE	140	145	165	209	260
		DISCHRG	112	117	127	158	211
0501-105	FLOUR & BREAKFAST CEREAL PROD	IN-TAKE	1	1	1	3	5
		DISCHRG					1
0501-106	FEED INDUSTRY	IN-TAKE	5	5	5	5	158
		DISCHRG	4	4	4	4	145
0501-107	BAKERY PRODUCTS	IN-TAKE					14
		DISCHRG					6
0501-108	MISCELLANEOUS FOOD INDUSTRIES	IN-TAKE	1236	1093	944	1252	1295
		DISCHRG	1208	1066	917	1223	1254
0501-109	BEVERAGE INDUSTRIES	IN-TAKE	1221	1243	1147	1104	1142
		DISCHRG	1044	1069	976	929	943
MAJOR	TOTAL		3453	3430	3632	4152	5644
			3103	3067	3076	3517	4474
0503	RUBBER AND PLASTICS PRODUCTS						
0503-162	RUBBER PRODUCTS INDUSTRIES	IN-TAKE	70	55	48	76	67
		DISCHRG	65	51	44	72	62
0503-165	PLASTIC FABRICATING INDUSTRY	IN-TAKE			1	2	7
		DISCHRG			1	2	7
MAJOR	TOTAL		70	55	49	78	74
			65	51	45	74	69
0504	LEATHER INDUSTRIES						
0504-172	LEATHER TANNERIES	IN-TAKE	18	20	27	37	44
		DISCHRG	18	20	27	37	44
MAJOR	TOTAL		18	20	27	37	44
			18	20	27	37	44
0505	TEXTILES INDUSTRIES						
0505-183	MANMADE FIBRE,YARN,CLOTH MILLS	IN-TAKE			2	2	3
		DISCHRG					

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
WATER USE HISTORY - 1968 THROUGH 1972
(MILLIONS OF GALLONS)

SIC CODE	STANDARD CLASSIFICATION NAME		INTAKE & DISCHARGE FOR 1968	1969	1970	1971	1972
05	MANUFACTURING INDUSTRIES						
0505	TEXTILES INDUSTRIES						
MAJOR	TOTAL				2	2	3
0507	CLOTHING INDUSTRIES						
0507-249	MISC CLOTHING IND	IN-TAKE					3
		DISCHRG					3
MAJOR	TOTAL						3
							3
0508	WOOD INDUSTRIES						
0508-251	SAWMILLS,PLANING MILLS,SHINGLE	IN-TAKE	8	7	23	26	24
		DISCHRG	5	4	20	23	24
0508-259	MISCELLANEOUS WOOD INDUSTRIES	IN-TAKE	11	11	10	14	18
		DISCHRG					5
MAJOR	TOTAL		19	18	33	40	42
			5	4	20	23	29
0509	FURNITURE & FIXTURE INDUSTRIES						
0509-264	OFFICE FURNITURE MANUF	IN-TAKE					1
		DISCHRG					
MAJOR	TOTAL						1
0510	PAPER & ALLIED INDUSTRIES						
0510-271	PULP AND PAPER MILLS	IN-TAKE	7247	8009	7631	8082	7917
		DISCHRG	6028	6668	7082	6985	6967
0510-272	ASPHALT ROOFING MANUFACTURERS	IN-TAKE	36	77	104	160	193
		DISCHRG	30	65	90	140	174
0510-273	PAPER BOX & BAG MANUF	IN-TAKE	12	13	14	20	25
		DISCHRG	10	10	11	12	8
0510-274	MISCELLANEOUS PAPER CONVERTERS	IN-TAKE			1	1	1
		DISCHRG					
MAJOR	TOTAL		7295	8099	7750	8263	8136
			6068	6743	7183	7137	7149
0511	PRINT, PUBLISH, & ALLIED INDUS						

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
WATER USE HISTORY - 1968 THROUGH 1972
(MILLIONS OF GALLONS)

SIC CODE	STANDARD CLASSIFICATION NAME		INTAKE & DISCHARGE FOR 1968	1969	1970	1971	1972
05	MANUFACTURING INDUSTRIES						
0511	PRINT, PUBLISH, & ALLIED INDUS						
0511-289	PUBLISHING & PRINTING	IN-TAKE	9	10	11	11	10
		DISCHRG					6
MAJOR	TOTAL		9	10	11	11	10
							6
0512	PRIMARY METAL INDUSTRIES						
0512-291	IRON & STEEL MILLS	IN-TAKE					I
		DISCHRG					1
0512-292	STEEL PIPE AND TUBE MILLS	IN-TAKE	37	37	37	39	48
		DISCHRG	37	37	37	39	48
0512-294	IRON FOUNDRIES	IN-TAKE	22	22	28	29	33
		DISCHRG	19	19	25	27	30
0512-295	SMELTING AND REFINING	IN-TAKE	860	861	860	860	860
		DISCHRG	342	402	281	236	335
0512-296	ALUMINUM ROLLING, CASTING	IN-TAKE		15			35
		DISCHRG					34
0512-298	METAL ROLLING, CASTING, EXTRUDIN	IN-TAKE	1	1	2	1	1
		DISCHRG	1				
MAJOR	TOTAL		920	936	927	929	978
			399	458	343	302	448
0513	METAL FABRICATING INDUSTRIES						
0513-302	FABRICATED STRUCT. METAL INDUS	IN-TAKE	15	217	247	194	310
		DISCHRG	8	209	240	188	223
0513-304	METAL STAMPING, PRESSING INDUST	IN-TAKE					I
		DISCHRG					I
0513-305	WIRE PRODUCTS MANUFACTURING	IN-TAKE	3	5	4	5	4
		DISCHRG	3	5	4	5	4
0513-309	MISC. METAL FABRICATING INDUST	IN-TAKE					2
		DISCHRG					2
MAJOR	TOTAL		18	222	251	199	317
			11	214	244	193	230
0514	MACHINERY INDUSTRIES						
0514-315	MISC MACHINERY&EQUIP MANUF	IN-TAKE					23
		DISCHRG					

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
WATER USE HISTORY - 1968 THROUGH 1972
(MILLIONS OF GALLONS)

SIC CODE	STANDARD CLASSIFICATION NAME		INTAKE & DISCHARGE FOR 1968	1969	1970	1971	1972
05	MANUFACTURING INDUSTRIES						
0514	MACHINERY INDUSTRIES						
MAJOR	TOTAL						23
0515	TRANSPORTATION EQUIP. INDUSTR						
0515-324	TRUCK BODY & TRAILER MANUF	IN-TAKE	5	3	3	2	1
		DISCHRG	4	2	2	2	1
0515-325	MOTOR VEHICLE PARTS & ACCES-MA	IN-TAKE	1	2	4	9	8
		DISCHRG	1	2	4	9	8
0515-326	RAILROAD ROLLING STOCK IND	IN-TAKE	93	92	92	92	93
		DISCHRG	84	81	83	81	84
MAJOR	TOTAL		99	97	99	103	102
			89	85	89	92	93
0516	ELECTRICAL PRODUCTS INDUSTRIES						
0516-338	MANUF OF ELECTRICAL CABF &WIRE	IN-TAKE	20	29	25	31	27
		DISCHRG	20	29	25	31	27
0516-339	MANUF.OF MISC. ELECTRICAL PROD	IN-TAKE	8	9	9	11	54
		DISCHRG	7	9	8	10	53
MAJOR	TOTAL		28	38	34	42	81
			27	38	33	41	80
0517	NON-METALLIC MINEPAL PRODUCTS						
0517-351	CLAY PRODUCTS MANUFACTURERS	IN-TAKE	10	12	10	11	11
		DISCHRG	7	8	7	7	7
0517-352	CEMENT MANUFACTURERS	IN-TAKE	220	232	220	233	234
		DISCHRG	38	38	38	38	38
0517-354	CONCRETE PRODUCTS MANUFACTURER	IN-TAKE	14	14	56	71	90
		DISCHRG	3	3	43	46	51
0517-355	READYMIX CONCRETE MANUFACTURER	IN-TAKE	305	347	372	425	495
		DISCHRG	286	320	347	397	458
0517-356	GLASS AND GLASS PRODUCTS	IN-TAKE	53	52	35	30	37
		DISCHRG	41	40	23	18	24
0517-358	LIME MANUFACTURERS	IN-TAKE	168	169	170	171	109
		DISCHRG	126	126	126	126	26
0517-359	MISC. NON-METALLIC MINERAL PRO	IN-TAKE	17	17	17	17	17
		DISCHRG					

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
WATER USE HISTORY - 1968 THROUGH 1972
(MILLIONS OF GALLONS)

SIC CODE	STANDARD CLASSIFICATION NAME		INTAKE & DISCHARGE FOR 1968	1969	1970	1971	1972
05	MANUFACTURING INDUSTRIES						
0517	NON-METALLIC MINERAL PRODUCTS						
MAJOR	TOTAL		787	843	880	958	993
			501	535	584	632	604
0518	PETROLEUM AND COAL PRODUCTS						
0518-365	PETROLEUM REFINERIES	IN-TAKE	8081	7898	7776	8021	8384
		DISCHRG	7154	6995	7733	6972	7209
0518-369	MISC PETROLEUM & COAL PRODUCTS	IN-TAKE	1792	1983	2216	1655	776
		DISCHRG	1819	1880	2091	1540	698
MAJOR	TOTAL		9873	9881	9992	9676	9160
			8973	8875	9824	8512	7907
0519	CHEMICAL & CHEMICAL PRODUCTS						
0519-372	MIXED FERTILIZERS	IN-TAKE	13140	13140	14030	14122	14100
		DISCHRG	12887	12887	13202	13250	13264
0519-373	PLASTICS & SYNTHETIC RESINS	IN-TAKE	163	171	163	164	156
		DISCHRG		39	15	15	43
0519-378	INDUSTRIAL CHEMICALS	IN-TAKE	4603	5048	5079	5081	4423
		DISCHRG	3649	3550	3873	3909	3284
0519-379	MISC. CHEMICAL INDUSTRIES	IN-TAKE	393	440	405	417	428
		DISCHRG	313	350	321	330	338
MAJOR	TOTAL		18299	18799	19677	19784	19107
			16849	16826	17411	17504	16929
0520	MISC. MANUFACTURING IND.						
0520-399	MISC. MANUFACT. INDUSTRIES NES	IN-TAKE					49
		DISCHRG					45
MAJOR	TOTAL						49
							45
DIVISION TOTAL			40888	42448	43364	44274	44767
			36108	36916	38879	38064	38110

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
WATER USE HISTORY - 1968 THROUGH 1972
(MILLIONS OF GALLONS)

SIC CODE	STANDARD CLASSIFICATION NAME		INTAKE & DISCHARGE FOR 1968	1969	1970	1971	1972
07	TRANS., COMM. & OTHER UTILITIE						
0704	ELEC. POWER, GAS & WATER UTILI						
0704-572	THERMAL ELECTRIC POWER	IN-TAKE	173889	183571	207310	197302	297545
		DISCHRG	173837	183519	207228	197130	297214
MAJOR	TOTAL		173889	183571	207310	197302	297545
			173837	183519	207228	197130	297214
DIVISION	TOTAL		173889	183571	207310	197302	297545
			173837	183519	207228	197130	297214

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
WATER USE HISTORY - 1968 THROUGH 1972
(MILLIONS OF GALLONS)

SIC CODE	STANDARD CLASSIFICATION NAME	INTAKE & DISCHARGE FOR 1968	1969	1970	1971	1972
GRAND	TOTAL	222216	235190	261372	253578	355631
		214131	225448	252054	241533	342695

Table 14

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972

YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	68-I CORR	68-I BLNK	68-D CORR	68-D BLNK	69-I CORR	69-I BLNK	69-D CORR	69-D BLNK	70-I CORR	70-I BLNK	70-D CORR	70-D BLNK
04	MINES, QUARRIES & OIL WELLS													
0402	MINERAL FUELS	56	33	20	31	22	37	16	34	19	43	9	38	14
0403	NON-METAL MINING (EXCEPT COAL)	1												
0404	QUARRIES AND SAND PITS	6	4	1	4	1	4	1	4	1	4	1	4	1
DIVISION TOTAL		63	37	21	35	23	41	17	38	20	47	10	42	15
05	MANUFACTURING INDUSTRIES													
0501	FOOD AND BEVERAGES	87	32	48	27	53	32	48	27	53	42	37	31	48
0503	RUBBER AND PLASTICS PRODUCTS	5	1	4	1	4	1	3	1	3	1	2	1	2
0504	LEATHER INDUSTRIES	1												
0505	TEXTILES INDUSTRIES	1		1		1		1		1	1			1
0507	CLOTHING INDUSTRIES	1		1		1		1		1		1		1
0508	WOOD INDUSTRIES	5	3	1		4	3	1		4	4		1	3
0509	FURNITURE & FIXTURE INDUSTRIES	1		1		1		1		1		1		1
0510	PAPER & ALLIED INDUSTRIES	10	6	4	5	5	6	4	5	5	7	3	5	5
05.1	PRINT., PUBLISH., & ALLIED INDUS	2	2		1	1	2		1	1	2		1	1
0512	PRIMARY METAL INDUSTRIES	12	7	3	5	5	8	2	5	5	6	4	5	5
0513	METAL FABRICATING INDUSTRIES	10	2	5		7	2	4		6	2	4		6
0514	MACHINERY INDUSTRIES	1		1		1		1		1		1		1
0515	TRANSPORTATION EQUIP. INDUSTR	4	3		3		3		3		3		3	
0516	ELECTRICAL PRODUCTS INDUSTRIES	5	3	2	3	2	3	2	3	2	3	2	3	2
0517	NON-METALLIC MINERAL PRODUCTS	46	17	28	15	30	27	18	25	20	30	14	28	16
05.8	PETROLEUM AND COAL PRODUCTS	9	7	2	8	1	8	1	9		8	1	9	
0519	CHEMICAL & CHEMICAL PRODUCTS	22	13	7	11	9	15	4	13	6	16	3	15	4
0520	MISC. MANUFACTURING IND.	1		1		1		1		1		1		1
DIVISION TOTAL		223	96	109	79	126	110	92	92	110	125	74	102	97
07	TRANS., COMM. & OTHER UTILITIE													
0704	ELEC. POWER, GAS & WATER UTILI	9	4	5	4	5	4	5	4	5	5	3	5	3
DIVISION TOTAL		9	4	5	4	5	4	5	4	5	5	3	5	3

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972

YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	71-I CORR	71-I BLNK	71-D CORR	71-D BLNK	INTK SAME	INTK DIF	DIS SAME	DIS DIF	68 I=D	69 I=D	70 I=D	71 I=D
04	MINES,QUARRIES & OIL WELLS													
0402	MINERAL FUELS	56	46	6	43	9	14	42	16	40	3	3	4	4
0403	NON-METAL MINING (EXCEPT COAL)	1						1		1	1	1	1	1
0404	QUARRIES AND SAND PITS	6	4	1	4	1	3	3	3	3	1	1	1	1
DIVISION TOTAL		63	50	7	47	10	17	46	19	44	5	5	6	6
05	MANUFACTURING INDUSTRIES													
0501	FOOD AND BEVERAGES	87	44	34	33	45	38	49	47	40	7	7	8	9
0503	RUBBER AND PLASTICS PRODUCTS	5	2	1	2	1	3	2	3	2		1	2	2
0504	LEATHER INDUSTRIES	1						1		1	1	1	1	1
0505	TEXTILES INDUSTRIES	1	1			1		1	1					
0507	CLOTHING INDUSTRIES	1		1		1	1		1					
0508	WOOD INDUSTRIES	5	4		1	3	1	4	3	2	1	1	1	1
0509	FURNITURE & FIXTURE INDUSTRIES	1		1		1	1		1					
0510	PAPER & ALLIED INDUSTRIES	10	9	1	6	4	1	9	4	6				
0511	PRINT, PUBLISH, & ALLIED INDUS	2	2		1	1		2	1	1				
0512	PRIMARY METAL INDUSTRIES	12	6	4	5	5	2	10	5	7	2	2	2	2
0513	METAL FABRICATING INDUSTRIES	10	2	4		6	4	6	6	4	3	4	4	4
0514	MACHINERY INDUSTRIES	1		1		1	1		1					
0515	TRANSPORTATION EQUIP. INDUSTR	4	3		3			4		4	1	1	1	1
0516	ELECTRICAL PRODUCTS INDUSTRIES	5	3	2	3	2	3	2	3	2				
0517	NON-METALLIC MINERAL PRODUCTS	46	33	11	29	15	16	30	21	25	1	1	2	2
0518	PETROLEUM AND COAL PRODUCTS	9	9		9		1	8	2	7				
0519	CHEMICAL & CHEMICAL PRODUCTS	22	16	3	15	4	7	15	7	15	2	3	3	3
0520	MISC. MANUFACTURING IND.	1		1		1	1		1					
DIVISION TOTAL		223	134	64	107	91	80	143	107	116	18	21	24	25
07	TRANS., COMM. & OTHER UTILITIE													
0704	ELEC. POWER, GAS & WATER UTILI	9	5	3	5	3	4	5	4	5			1	1
DIVISION TOTAL		9	5	3	5	3	4	5	4	5			1	1

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	68-I CORR	68-I BLNK	68-D CORR	68-D BLNK	69-I CORR	69-I BLNK	69-D CORR	69-D BLNK	70-I CORR	70-I BLNK	70-D CORR	70-D BLNK
GRAND	TOTAL	295	137	135	118	154	155	114	134	135	177	87	149	115

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	71-I CORR	71-I BLNK	71-D CORR	71-D BLNK	INTK SAME	INTK DIF	DIS SAME	DIS DIF	68 I=D	69 I=D	70 I=D	71 I=D
GRAND	TOTAL	295	189	74	159	104	101	194	130	165	23	26	31	32

Table 15
WATER USE BY RIVER BASIN - ALBERTA 1972
YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 01 PEACE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	68-I CORR	68-I BLNK	68-D CORR	68-D BLNK	69-I CORR	69-I BLNK	69-D CORR	69-D BLNK	70-I CORR	70-I BLNK	70-D CORR	70-D BLNK
04	MINES,QUARRIES & OIL WELLS													
0402	MINERAL FUELS	9	4	4	3	5	6	2	5	3	7	1	6	2
DIVISION TOTAL		9	4	4	3	5	6	2	5	3	7	1	6	2
05	MANUFACTURING INDUSTRIES													
0501	FOOD AND BEVERAGES	2		1		1		1		1		1		1
0508	WOOD INDUSTRIES	1		1		1		1		1	1		1	
0517	NON-METALLIC MINERAL PRODUCTS	3		3		3	2	1	2	1	2	1	2	1
DIVISION TOTAL		6		5		5	2	3	2	3	3	2	3	2
07	TRANS., COMM. & OTHER UTILITIE													
0704	ELEC. POWER, GAS & WATER UTILI	2		2		2		2		2		2		2
DIVISION TOTAL		2		2		2		2		2		2		2
RIV-BASN TOTAL		17	4	11	3	12	8	7	7	8	10	5	9	6

WATER USE BY RIVER BASIN - ALBERTA 1972
YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 02 ATHABASCA

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	68-I CORR	68-I BLNK	68-D CORR	68-D BLNK	69-I CORR	69-I BLNK	69-D CORR	69-D BLNK	70-I CORR	70-I BLNK	70-D CORR	70-D BLNK
04	MINES, QUARRIES & OIL WELLS													
0402	MINERAL FUELS	7	3	3	3	3	3	3	3	3	4	1	3	2
0404	QUARRIES AND SAND PITS	1	1		1		1		1		1		1	
DIVISION TOTAL		8	4	3	4	3	4	3	4	3	5	1	4	2
05	MANUFACTURING INDUSTRIES													
0501	FOOD AND BEVERAGES	1		1		1		1		1		1		1
0510	PAPER & ALLIED INDUSTRIES	1	1		1		1		1		1		1	
DIVISION TOTAL		2	1	1	1	1	1	1	1	1	1	1	1	1
RIV-BASN TOTAL		10	5	4	5	4	5	4	5	4	6	2	5	3

WATER USE BY RIVER BASIN - ALBERTA 1972
YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 03 NORTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	68-I CORR	68-I BLNK	68-D CORR	68-D BLNK	69-I CORR	69-I BLNK	69-D CORR	69-D BLNK	70-I CORR	70-I BLNK	70-D CORR	70-D BLNK
04	MINES,QUARRIES & OIL WELLS													
0402	MINERAL FUELS	12	8	4	7	5	8	4	7	5	10	2	8	4
0403	NON-METAL MINING (EXCEPT COAL)	1												
0404	QUARRIES AND SAND PITS	2		1		1		1		1		1		1
DIVISION TOTAL		15	8	5	7	6	8	5	7	6	10	3	8	5
05	MANUFACTURING INDUSTRIES													
0501	FOOD AND BEVERAGES	25	11	12	10	13	11	12	10	13	13	10	10	13
0503	RUBBER AND PLASTICS PRODUCTS	1		1		1		1		1		1		1
0504	LEATHER INDUSTRIES	1												
0505	TEXTILES INDUSTRIES	1		1		1		1		1	1			1
0507	CLOTHING INDUSTRIES	1		1		1		1		1		1		1
0508	WOOD INDUSTRIES	2	2			2	2			2	2			2
0510	PAPER & ALLIED INDUSTRIES	3	2	1	1	2	2	1	1	2	2	1	1	2
0512	PRIMARY METAL INDUSTRIES	5	3	1	2	2	3	1	2	2	2	2	2	2
0513	METAL FABRICATING INDUSTRIES	6	2	4		6	2	3		5	2	3		5
0515	TRANSPORTATION EQUIP. INDUSTR	2	2		2		2		2		2		2	
0517	NON-METALLIC MINERAL PRODUCTS	15	4	11	4	11	7	8	7	8	8	7	8	7
0518	PETROLEUM AND COAL PRODUCTS	5	3	2	4	1	4	1	5		4	1	5	
0519	CHEMICAL & CHEMICAL PRODUCTS	16	9	5	7	7	11	2	9	4	12	1	11	2
0520	MISC. MANUFACTURING IND.	1		1		1		1		1		1		1
DIVISION TOTAL		84	38	40	30	48	44	32	36	40	48	28	39	37
07	TRANS., COMM. & OTHER UTILITIE													
0704	ELEC. POWER, GAS & WATER UTILI	5	2	3	2	3	2	3	2	3	3	1	3	1
DIVISION TOTAL		5	2	3	2	3	2	3	2	3	3	1	3	1
RIV-BASN TOTAL		104	48	48	39	57	54	40	45	49	61	32	50	43

WATER USE BY RIVER BASIN - ALBERTA 1972
YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 04 RED DEER

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	68-I CORR	68-I BLNK	68-D CORR	68-D BLNK	69-I CORR	69-I BLNK	69-D CORR	69-D BLNK	70-I CORR	70-I BLNK	70-D CORR	70-D BLNK
04	MINES,QUARRIES & OIL WELLS													
0402	MINERAL FUELS	10	6	3	6	3	7	2	7	2	7	2	7	2
DIVISION TOTAL		10	6	3	6	3	7	2	7	2	7	2	7	2
05	MANUFACTURING INDUSTRIES													
0501	FOOD AND BEVERAGES	7	2	4	2	4	2	4	2	4	3	2	2	3
0517	NON-METALLIC MINERAL PRODUCTS	2		2		2	2		2		2		2	
0518	PETROLEUM AND COAL PRODUCTS	1	1		1		1		1		1		1	
DIVISION TOTAL		10	3	6	3	6	5	4	5	4	6	2	5	3
RIV-BASN TOTAL		20	9	9	9	9	12	6	12	6	13	4	12	5

WATER USE BY RIVER BASIN - ALBERTA 1972
YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 05 SOUTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	68-I CORR	68-I BLNK	68-D CORR	68-D BLNK	69-I CORR	69-I BLNK	69-D CORR	69-D BLNK	70-I CORR	70-I BLNK	70-D CORR	70-D BLNK
04	MINES,QUARRIES & OIL WELLS													
0402	MINERAL FUELS	18	12	6	12	6	13	5	12	6	15	3	14	4
0404	QUARRIES AND SAND PITS	3	3		3		3		3		3		3	
DIVISION TOTAL		21	15	6	15	6	16	5	15	6	18	3	17	4
05	MANUFACTURING INDUSTRIES													
0501	FOOD AND BEVERAGES	52	19	30	15	34	19	30	15	34	26	23	19	30
0503	RUBBER AND PLASTICS PRODUCTS	4	1	3	1	3	1	2	1	2	1	1	1	1
0508	WOOD INDUSTRIES	2	1			1	1			1	1			1
0509	FURNITURE & FIXTURE INDUSTRIES	1		1		1		1		1		1		1
0510	PAPER & ALLIED INDUSTRIES	6	3	3	3	3	3	3	3	3	4	2	3	3
0511	PRINT, PUBLISH, & ALLIED INDUS	2	2		1	1	2		1	1	2		1	1
0512	PRIMARY METAL INDUSTRIES	7	4	2	3	3	5	1	3	3	4	2	3	3
0513	METAL FABRICATING INDUSTRIES	4		1		1		1		1		1		1
0514	MACHINERY INDUSTRIES	1		1		1		1		1		1		1
0515	TRANSPORTATION EQUIP. INDUSTR	2	1		1		1		1		1		1	
0516	ELECTRICAL PRODUCTS INDUSTRIES	5	3	2	3	2	3	2	3	2	3	2	3	2
0517	NON-METALLIC MINERAL PRODUCTS	26	13	12	11	14	16	9	14	11	18	6	16	8
0518	PETROLEUM AND COAL PRODUCTS	3	3		3		3		3		3		3	
0519	CHEMICAL & CHEMICAL PRODUCTS	6	4	2	4	2	4	2	4	2	4	2	4	2
DIVISION TOTAL		121	54	57	45	66	58	52	48	62	67	41	54	54
07	TRANS., COMM. & OTHER UTILITIE													
0704	ELEC. POWER, GAS & WATER UTILI	2	2		2		2		2		2		2	
DIVISION TOTAL		2	2		2		2		2		2		2	
RIV-BASN TOTAL		144	71	63	62	72	76	57	65	68	87	44	73	58

WATER USE BY RIVER BASIN - ALBERTA 1972
YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	68-I CORR	68-I BLNK	68-D CORR	68-D BLNK	69-I CORR	69-I BLNK	69-D CORR	69-D BLNK	70-I CORR	70-I BLNK	70-D CORR	70-D BLNK
GRAND	TOTAL	295	137	135	118	154	155	114	134	135	177	87	149	115

WATER USE BY RIVER BASIN - ALBERTA 1972
YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 01 PEACE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	71-I CORR	71-I BLNK	71-D CORR	71-D BLNK	INTK SAME	INTK DIF	DIS SAME	DIS DIF	68 I=D	69 I=D	70 I=D	71 I=D
04	MINES,QUARRIES & OIL WELLS													
0402	MINERAL FUELS	9	7	1	6	2	2	7	2	7	1	1	1	1
DIVISION TOTAL		9	7	1	6	2	2	7	2	7	1	1	1	1
05	MANUFACTURING INDUSTRIES													
0501	FOOD AND BEVERAGES	2	1		1		1	1	1	1	1	1	1	1
0508	WOOD INDUSTRIES	1	1		1			1		1				
0517	NON-METALLIC MINERAL PRODUCTS	3	3		2	1		3	1	2				
DIVISION TOTAL		6	5		4	1	1	5	2	4	1	1	1	1
07	TRANS., COMM. & OTHER UTILITIE													
070-	ELEC. POWER, GAS & WATER UTILI	2		2		2	2		2					
DIVISION TOTAL		2		2		2	2		2					
RIV-BASN TOTAL		17	12	3	10	5	5	12	6	11	2	2	2	2

WATER USE BY RIVER BASIN - ALBERTA 1972

YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 02 ATHABASCA

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	71-I CORR	71-I BLNK	71-D CORR	71-D BLNK	INTK SAME	INTK DIF	DIS SAME	DIS DIF	68 I=D	69 I=D	70 I=D	71 I=D
04	MINES,QUARRIES & OIL WELLS													
0402	MINERAL FUELS	7	4	1	3	2	1	6	1	6	1	1	2	2
0404	QUARRIES AND SAND PITS	1	1		1			1		1				
DIVISION TOTAL		8	5	1	4	2	1	7	1	7	1	1	2	2
05	MANUFACTURING INDUSTRIES													
0501	FOOD AND BEVERAGES	1		1		1	1		1					
0510	PAPER & ALLIED INDUSTRIES	1	1		1			1		1				
DIVISION TOTAL		2	1	1	1	1	1	1	1	1				
RIV-BASN TOTAL		10	6	2	5	3	2	8	2	8	1	1	2	2

WATER USE BY RIVER BASIN - ALBERTA 1972
YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 03 NORTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	71-I CORR	71-I BLNK	71-D CORR	71-D BLNK	INTK SAME	INTK DIF	DIS SAME	DIS DIF	68 I=D	69 I=D	70 I=D	71 I=D
04	MINES,QUARRIES & OIL WELLS													
0402	MINERAL FUELS	12	11	1	10	2	1	11	2	10				
0403	NON-METAL MINING (EXCEPT COAL)	1						1		1	1	1	1	1
0404	QUARRIES AND SAND PITS	2		1		1	1	1	1	1	1	1	1	1
DIVISION TOTAL		15	11	2	10	3	2	13	3	12	2	2	2	2
05	MANUFACTURING INDUSTRIES													
0501	FOOD AND BEVERAGES	25	14	9	10	13	10	15	13	12	2	2	2	2
0503	RUBBER AND PLASTICS PRODUCTS	1		1		1	1		1					
0504	LEATHER INDUSTRIES	1						1		1	1	1	1	1
0505	TEXTILES INDUSTRIES	1	1			1		1	1					
0507	CLOTHING INDUSTRIES	1		1		1	1		1					
0508	WOOD INDUSTRIES	2	2			2		2	2					
0510	PAPER & ALLIED INDUSTRIES	3	3		2	1		3	1	2				
0512	PRIMARY METAL INDUSTRIES	5	2	2	2	2		5	1	4	1	1	1	1
0513	METAL FABRICATING INDUSTRIES	6	2	3		5	3	3	5	1		1	1	1
0515	TRANSPORTATION EQUIP. INDUSTR	2	2		2			2		2				
0517	NON-METALLIC MINERAL PRODUCTS	15	8	7	8	7	7	8	8	7				
0518	PETROLEUM AND COAL PRODUCTS	5	5		5			5		5				
0519	CHEMICAL & CHEMICAL PRODUCTS	16	12	1	11	2	3	13	3	13	2	3	3	3
0520	MISC. MANUFACTURING IND.	1		1		1	1		1					
DIVISION TOTAL		84	51	25	40	36	26	58	37	47	6	8	8	8
07	TRANS., COMM. & OTHER UTILITIE													
0704	ELEC. POWER, GAS & WATER UTILI	5	3	1	3	1	1	4	1	4			1	1
DIVISION TOTAL		5	3	1	3	1	1	4	1	4			1	1
RIV-BASN TOTAL		104	65	28	53	40	29	75	41	63	8	10	11	11

WATER USE BY RIVER BASIN - ALBERTA 1972
YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 04 RED DEER

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	71-I CORR	71-I BLNK	71-D CORR	71-D BLNK	INTK SAME	INTK DIF	DIS SAME	DIS DIF	68 I=D	69 I=D	70 I=D	71 I=D
04	MINES,QUARRIES & OIL WELLS													
0402	MINERAL FUELS	10	9		9		2	8	2	8	1	1	1	1
DIVISION TOTAL		10	9		9		2	8	2	8	1	1	1	1
05	MANUFACTURING INDUSTRIES													
0501	FOOD AND BEVERAGES	7	3	2	2	3	2	5	3	4	1	1	2	2
0517	NON-METALLIC MINERAL PRODUCTS	2	2		2			2		2				
0518	PETROLEUM AND COAL PRODUCTS	1	1		1			1	1					
DIVISION TOTAL		10	6	2	5	3	2	8	4	6	1	1	2	2
RIV-BASN TOTAL		20	15	2	14	3	4	16	6	14	2	2	3	3

WATER USE BY RIVER BASIN - ALBERTA 1972
YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 05 SOUTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	71-I CORR	71-I BLNK	71-D CORR	71-D BLNK	INTK SAME	INTK DIF	DIS SAME	DIS DIF	68 I=D	69 I=D	70 I=D	71 I=D
04	MINES,QUARRIES & OIL WELLS													
0402	MINERAL FUELS	18	15	3	15	3	8	10	9	9				
0404	QUARRIES AND SAND PITS	3	3		3		2	1	2	1				
DIVISION TOTAL		21	18	3	18	3	10	11	11	10				
05	MANUFACTURING INDUSTRIES													
0501	FOOD AND BEVERAGES	52	26	22	20	28	24	28	29	23	3	3	3	4
0503	RUBBER AND PLASTICS PRODUCTS	4	2		2		2	2	2	2		1	2	2
0508	WOOD INDUSTRIES	2	1			1	1	1	1	1	1	1	1	1
0509	FURNITURE & FIXTURE INDUSTRIES	1		1		1	1		1					
0510	PAPER & ALLIED INDUSTRIES	6	5	1	3	3	1	5	3	3				
0511	PRINT., PUBLISH., & ALLIED INDUS	2	2		1	1		2	1	1				
0512	PRIMARY METAL INDUSTRIES	7	4	2	3	3	2	5	4	3	1	1	1	1
0513	METAL FABRICATING INDUSTRIES	4		1		1	1	3	1	3	3	3	3	3
0514	MACHINERY INDUSTRIES	1		1		1	1		1					
0515	TRANSPORTATION EQUIP. INDUSTR	2	1		1			2		2	1	1	1	1
0516	ELECTRICAL PRODUCTS INDUSTRIES	5	3	2	3	2	3	2	3	2				
0517	NON-METALLIC MINERAL PRODUCTS	26	20	4	17	7	9	17	12	14	1	1	2	2
0518	PETROLEUM AND COAL PRODUCTS	3	3		3		1	2	1	2				
0519	CHEMICAL & CHEMICAL PRODUCTS	6	4	2	4	2	4	2	4	2				
DIVISION TOTAL		121	71	36	57	50	50	71	63	58	10	11	13	14
07	TRANS., COMM. & OTHER UTILITIE													
0704	ELEC. POWER, GAS & WATER UTILI	2	2		2		1	1	1	1				
DIVISION TOTAL		2	2		2		1	1	1	1				
RIV-BASN TOTAL		144	91	39	77	53	61	83	75	69	10	11	13	14

WATER USE BY RIVER BASIN - ALBERTA 1972
YEARLY TOTALS - INTAKE & DISCHARGE
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	71-I CORR	71-I BLNK	71-D CORR	71-D BLNK	INTK SAME	INTK DIF	DIS SAME	DIS DIF	68 I=D	69 I=D	70 I=D	71 I=D
GRAND	TOTAL	295	189	74	159	104	101	194	130	165	23	26	31	32

Item VII - Water Treated by Method of Treatment

The "Total quantity treated" figures do not necessarily equal the sum of the listed treatments due to three factors:

(a) Rounding figures reported were mostly rounded to millions. Rounding methods used in the program may result in small discrepancies between breakdowns and totals.

(b) Some volumes of water were treated more than once. This would cause the sum of the breakdowns to be greater than the indicated total quantity treated.

(c) In some cases, only the total quantity treated was indicated, while the breakdowns were left blank. The effect in this case is that the total quantity treated would be greater than the breakdowns.

A. Intake Water - Tables 16, 17, 18, 19

Alberta's raw water supply is of suitable quality for many water uses in manufacturing. Treatment of intake water can be used to indicate the water quality of various sources. Data in this section forms a large, untapped source of information on the quality of Alberta's raw water supply. Any establishment or industrial group with known quality requirements that reports "no treatment necessary" gives information on the actual quality of their water supply and the surface or groundwater body it is taken from. For surface water bodies, an upstream-downstream comparison of intake water treatment is also an indication of instream water quality changes, instream deterioration of water quality, or of the natural self-cleaning power of streams.

This item was generally troublesome to process, but significant results were obtained. Responses to this item were coded as follows:

(a) Blank - "No treatment" not indicated and no figures given.

(b) No treatment - Intake water not treated.

(c) Yes and Answered Correctly - applies to cases where treatment of intake water was indicated, and figures were filled in for different treatments, as well as for the total amount treated.

(d) Yes and total only - applies to those cases where treatment was indicated with only a total quantity shown. No breakdowns by treatment were provided for this category.

(e) Yes and Breakdown only - this classification applies to the questionnaires which indicated that intake water was treated, but only a breakdown was provided. This breakdown may have been partial or complete, but no total was indicated. This alternative occurred only occasionally.

(f) Yes and remainder Blank - applies to instances where treatment of intake water is indicated, but no breakdown or total is provided.

In addition to these six general classifications, the main source of intake was identified as being either "Municipal" or "other". Municipal here means most intake water was taken from a municipal water supply system.

For Table 17, our example of "Mineral Fuels" (S.I.C. Code 0402) was broken down as follows:

(a) Total Questionnaires - 56

(b) Blank - 2

(c) No Treatment - 3

(d) Yes and Answered Correctly - 51

(e) Yes and Municipal Water Supply - 2

(f) Municipal Water Supply - 2

Table 16
WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

04 MINES, QUARRIES & OIL WELLS

STAND'D IND CLS CODE MIN	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
0402 MINERAL FUELS										
0402-061					15					
0402-064	4405	43	2362	2195	456	403	3112	1681	552	762
MAJOR	4405	43	2362	2195	471	403	3112	1681	552	762
0403 NON-METAL MINING (EXCEPT COAL)										
0403-079	44		44	12	12					
MAJOR	44		44	12	12					
0404 QUARRIES AND SAND PITS										
0404-087	6100					1000		1000	6100	
MAJOR	6100					1000		1000	6100	
DIVISION	10549	43	2406	2207	483	1403	3112	2581	6652	762

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

05 MANUFACTURING INDUSTRIES

STAND'D IND CLS CODE MIN	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
0501 FOOD AND BEVERAGES										
0501-101	125	24	24	24	98	32	38	33		
0501-103	84			80				4		
0501-104	40				9	1		1		29
0501-105										
0501-106	21				21					
0501-107										
0501-108	26			2	21				2	1
0501-109	172		3	144	20		4	4		
MAJOR	468	24	27	250	169	33	42	42	2	30
0503 RUBBER AND PLASTICS PRODUCTS										
0503-162										
0503-165										
MAJOR										
0504 LEATHER INDUSTRIES										
0504-172										
MAJOR										
0505 TEXTILES INDUSTRIES										
0505-183										
MAJOR										
0507 CLOTHING INDUSTRIES										
0507-249										
MAJOR										
0508 WOOD INDUSTRIES										
0508-251	10				10					
0508-259	8				8		6	6		
MAJOR	18				18		6	6		
0509 FURNITURE & FIXTURE INDUSTRIES										
0509-264										
MAJOR										

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

05 MANUFACTURING INDUSTRIES

STAND'D IND CLS CODE MIN	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
0510 PAPER & ALLIED INDUSTRIES										
0510-271	7717		7717	4091	4104	146			7717	
0510-272										
0510-273										
0510-274										
MAJOR	7717		7717	4091	4104	146			7717	
0511 PRINT, PUBLISH, & ALLIED INDUS										
0511-289										
MAJOR										
0512 PRIMARY METAL INDUSTRIES										
0512-291										
0512-292										
0512-294	2				2					
0512-295			312		387				156	
0512-296	1				1					
0512-298										
MAJOR	3		312		390				156	
0513 METAL FABRICATING INDUSTRIES										
0513-302	50			50			50			
0513-304										
0513-305										
0513-309										
MAJOR	50			50			50			
0514 MACHINERY INDUSTRIES										
0514-315										
MAJOR										
0515 TRANSPORTATION EQUIP. INDUSTR										
0515-324										
0515-325										
0515-326	20	5	15		20		5			
MAJOR	20	5	15		20		5			
0516 ELECTRICAL PRODUCTS INDUSTRIES										

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

05 MANUFACTURING INDUSTRIES

STAND'D IND CLS CODE MIN	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
0516 ELECTRICAL PRODUCTS INDUSTRIES										
0516-338										
0516-339										
MAJOR										
0517 NON-METALLIC MINERAL PRODUCTS										
0517-351										
0517-352										
0517-354	8		7	7	8	7	7	7		
0517-355	1									
0517-356	19						19			
0517-358										
0517-359										
MAJOR	28		7	7	8	7	26	7		
0518 PETROLEUM AND COAL PRODUCTS										
0518-365	1120		666	263	956	701	594	191	922	237
0518-369	63		48		63	48	48	48		
MAJOR	1183		714	263	1019	749	642	239	922	237
0519 CHEMICAL & CHEMICAL PRODUCTS										
0519-372	1307		1172	302	1172	482	440	440		
0519-373	19				6		13	13		
0519-378	4110		3266	3113	456	485	547	547	4324	547
0519-379	20					19	4	3		
MAJOR	5456		4438	3415	1634	986	1004	1003	4324	547
0520 MISC. MANUFACTURING IND.										
0520-399										
MAJOR										
DIVISION	14943	29	13230	8076	7362	1921	1775	1297	13121	814

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

07 TRANS., COMM. & OTHER UTILITIE

STAND'D IND CLS CODE MIN	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
0704 ELEC. POWER, GAS & WATER UTILI										
0704-572	1735		24	1654	99	89	60	60	23	
MAJOR	1735		24	1654	99	89	60	60	23	
DIVISION	1735		24	1654	99	89	60	60	23	

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

STAND'D IND CLS CODE MIN	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
GRAND	27227	72	15660	11937	7944	3413	4947	4038	19796	1576

Table 17

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972

INTAKE WATER TREATED BY METHOD OF TREATMENT

SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
04	MINES,QUARRIES & OIL WELLS									
0402	MINERAL FUELS	56	2	3	51				2	2
0403	NON-METAL MINING (EXCEPT COAL)	1			1					
0404	QUARRIES AND SAND PITS	6		4	2				1	3
DIVISION TOTAL		63	2	7	54				3	5
05	MANUFACTURING INDUSTRIES									
0501	FOOD AND BEVERAGES	87	9	37	38			3	39	81
0503	RUBBER AND PLASTICS PRODUCTS	5		5						5
0504	LEATHER INDUSTRIES	1		1						1
0505	TEXTILES INDUSTRIES	1		1						1
0507	CLOTHING INDUSTRIES	1		1						1
0508	WOOD INDUSTRIES	5		2	3				2	4
0509	FURNITURE & FIXTURE INDUSTRIES	1	1							1
0510	PAPER & ALLIED INDUSTRIES	10	2	2	5			1	3	7
0511	PRINT, PUBLISH, & ALLIED INDUS	2		1	1					1
0512	PRIMARY METAL INDUSTRIES	12		9	2		1		2	11
0513	METAL FABRICATING INDUSTRIES	10	1	7	2				2	10
0514	MACHINERY INDUSTRIES	1	1							1
0515	TRANSPORTATION EQUIP. INDUSTR	4		1	2			1	3	4
0516	ELECTRICAL PRODUCTS INDUSTRIES	5	2	3						5
0517	NON-METALLIC MINERAL PRODUCTS	46	4	21	20	1			16	34
0518	PETROLEUM AND COAL PRODUCTS	9			6		2	1	2	2
0519	CHEMICAL & CHEMICAL PRODUCTS	22	1	8	8	1	3	1	6	12
0520	MISC. MANUFACTURING IND.	1		1						1
DIVISION TOTAL		223	21	100	87	2	6	7	75	182
07	TRANS., COMM. & OTHER UTILITIE									
0704	ELEC. POWER, GAS & WATER UTILI	9		3	6				1	1
DIVISION TOTAL		9		3	6				1	1

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
GRAND	TOTAL	295	23	110	147	2	6	7	79	188

Table 18
WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 01 PEACE

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
04 MINES,QUARRIES & OIL WELLS										
0402 MINERAL FUELS										
0402-064	1326			753	48	27	1146	572	3	
MAJOR	1326			753	48	27	1146	572	3	
DIVISION	1326			753	48	27	1146	572	3	
05 MANUFACTURING INDUSTRIES										
0501 FOOD AND BEVERAGES										
0501-101										
0501-109	1			1						
MAJOR	1			1						
0508 WOOD INDUSTRIES										
0508-251	10				10					
MAJOR	10				10					
0517 NON-METALLIC MINERAL PRODUCTS										
0517-355										
MAJOR										
DIVISION	11			1	10					
07 TRANS., COMM. & OTHER UTILITIE										
0704 ELEC. POWER, GAS & WATER UTILI										
0704-572	62		1	1	1	1	60	60		
MAJOR	62		1	1	1	1	60	60		
DIVISION	62		1	1	1	1	60	60		
RIV-BASN	1399		1	755	59	28	1206	632	3	

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 02 ATHABASCA

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
04 MINES, QUARRIES & OIL WELLS										
0402 MINERAL FUELS										
0402-061					15					
0402-064	988	10	327	793	42	53	532	205		
MAJOR	988	10	327	793	57	53	532	205		
0404 QUARRIES AND SAND PITS										
0404-087	6100					1000		1000	6100	
MAJOR	6100					1000		1000	6100	
DIVISION	7088	10	327	793	57	1053	532	1205	6100	
05 MANUFACTURING INDUSTRIES										
0501 FOOD AND BEVERAGES										
0501-104										
MAJOR										
0510 PAPER & ALLIED INDUSTRIES										
0510-271	7717		7717	4091	4104	146			7717	
MAJOR	7717		7717	4091	4104	146			7717	
DIVISION	7717		7717	4091	4104	146			7717	
RIV-BASN	14805	10	8044	4884	4161	1199	532	1205	13817	

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 03 NORTH SASK

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
04 MINES, QUARRIES & OIL WELLS										
0402 MINERAL FUELS										
0402-064	834			72	123	44	604	313	258	535
MAJOR	834			72	123	44	604	313	258	535
0403 NON-METAL MINING (EXCEPT COAL)										
0403-079	44		44	12	12					
MAJOR	44		44	12	12					
DIVISION	878		44	84	135	44	604	313	258	535
05 MANUFACTURING INDUSTRIES										
0501 FOOD AND BEVERAGES										
0501-101	35				20	8		7		
0501-103										
0501-104	6				4	1		1		
0501-105										
0501-106	21				21					
0501-107										
0501-109	136			131			4	4		
MAJOR	198			131	45	9	4	12		
0504 LEATHER INDUSTRIES										
0504-172										
MAJOR										
0505 TEXTILES INDUSTRIES										
0505-183										
MAJOR										
0507 CLOTHING INDUSTRIES										
0507-249										
MAJOR										

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 03 NORTH SASK

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
0508 WOOD INDUSTRIES										
0508-251										
0508-259	2				2					
MAJOR	2				2					
0510 PAPER & ALLIED INDUSTRIES										
0510-272										
0510-273										
MAJOR										
0512 PRIMARY METAL INDUSTRIES										
0512-291										
0512-292										
0512-294										
0512-295			312		387				156	
MAJOR			312		387				156	
0513 METAL FABRICATING INDUSTRIES										
0513-302	50			50			50			
0513-304										
MAJOR	50			50			50			
0515 TRANSPORTATION EQUIP. INDUSTR										
0515-324										
0515-326	5	5			5		5			
MAJOR	5	5			5		5			
0517 NON-METALLIC MINERAL PRODUCTS										
0517-352										
0517-354	7		7	7	7	7	7	7		
0517-355	1									
0517-356	19						19			
MAJOR	27		7	7	7	7	26	7		

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 03 NORTH SASK

	TOTAL QUANTITY TREATED		TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
0518	PETROLEUM AND COAL PRODUCTS										
0518-365	954			503	100	793	535	594	191	922	236
0518-369	15					15					
MAJOR	969			503	100	808	535	594	191	922	236
0519	CHEMICAL & CHEMICAL PRODUCTS										
0519-372	910			910	40	910	220	440	440		
0519-373	19					6		13	13		
0519-378	4110			3066	3066	456	438	547	547	3613	547
0519-379	1							4	3		
MAJOR	5040			3976	3106	1372	658	1004	1003	3613	547
0520	MISC. MANUFACTURING IND.										
0520-399											
MAJOR											
DIVISION	6291		5	4798	3394	2626	1209	1683	1213	4691	783
07	TRANS., COMM. & OTHER UTILITIE										
0704	ELEC. POWER, GAS & WATER UTILI										
0704-572	1673			23	1653	98	88			23	
MAJOR	1673			23	1653	98	88			23	
DIVISION	1673			23	1653	98	88			23	
RIV-BASN	8842		5	4965	5131	2859	1341	2287	1526	4972	1318

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 04 RED DEER

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
04 MINES, QUARRIES & OIL WELLS										
0402 MINERAL FUELS										
0402-064	393	4	8	40	11	12	108	3	266	49
MAJOR	393	4	8	40	11	12	108	3	266	49
DIVISION	393	4	8	40	11	12	108	3	266	49
05 MANUFACTURING INDUSTRIES										
0501 FOOD AND BEVERAGES										
0501-101	13				2		11			
0501-104	34				5					29
0501-109	2			2						
MAJOR	49			2	7		11			29
0518 PETROLEUM AND COAL PRODUCTS										
0518-365	3					3				
MAJOR	3					3				
DIVISION	52			2	7	3	11			29
RIV-BASN	445	4	8	42	18	15	119	3	266	78

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
04 MINES, QUARRIES & OIL WELLS										
0402 MINERAL FUELS										
0402-061										
0402-064	864	29	2027	537	232	267	722	588	25	178
MAJOR	864	29	2027	537	232	267	722	588	25	178
0404 QUARRIES AND SAND PITS										
0404-087										
MAJOR										
DIVISION	864	29	2027	537	232	267	722	588	25	178
05 MANUFACTURING INDUSTRIES										
0501 FOOD AND BEVERAGES										
0501-101	77	24	24	24	76	24	27	26		
0501-103	84			80				4		
0501-104										
0501-105										
0501-106										
0501-107										
0501-108	26			2	21				2	1
0501-109	33		3	10	20					
MAJOR	220	24	27	116	117	24	27	30	2	1
0503 RUBBER AND PLASTICS PRODUCTS										
0503-162										
0503-165										
MAJOR										
0508 WOOD INDUSTRIES										
0508-251										
0508-259	6				6		6	6		
MAJOR	6				6		6	6		
0509 FURNITURE & FIXTURE INDUSTRIES										
0509-254										

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
0509 FURNITURE & FIXTURE INDUSTRIES										
MAJOR										
0510 PAPER & ALLIED INDUSTRIES										
0510-272										
0510-273										
0510-274										
MAJOR										
0511 PRINT, PUBLISH, & ALLIED INDUS										
0511-289										
MAJOR										
0512 PRIMARY METAL INDUSTRIES										
0512-292										
0512-294	2				2					
0512-296	1				1					
0512-298										
MAJOR	3				3					
0513 METAL FABRICATING INDUSTRIES										
0513-302										
0513-305										
0513-309										
MAJOR										
0514 MACHINERY INDUSTRIES										
0514-315										
MAJOR										
0515 TRANSPORTATION EQUIP. INDUSTR										
0515-325										

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
0515 TRANSPORTATION EQUIP. INDUSTR										
0515-326	15		15		15					
MAJOR	15		15		15					
0516 ELECTRICAL PRODUCTS INDUSTRIES										
0516-338										
0516-339										
MAJOR										
0517 NON-METALLIC MINERAL PRODUCTS										
0517-351										
0517-352										
0517-354	1				1					
0517-355										
0517-356										
0517-358										
0517-359										
MAJOR	1				1					
0518 PETROLEUM AND COAL PRODUCTS										
0518-365	163		163	163	163	163				1
0518-369	48		48		48	48	48	48		
MAJOR	211		211	163	211	211	48	48		1
0519 CHEMICAL & CHEMICAL PRODUCTS										
0519-372	397		262	262	262	262				
0519-378			200	47		47			711	
0519-379	19					19				
MAJOR	416		462	309	262	328			711	
DIVISION	872	24	715	588	615	563	81	84	713	2
07 TRANS., COMM. & OTHER UTILITIE										
0704 ELEC. POWER, GAS & WATER UTILI										
0704-572										

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
RIV-BASN	1736	53	2742	1125	847	830	803	672	738	180

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	OTHER TREATMENT
GRAND	27227	72	15660	11937	7944	3413	4947	4038	19796	1576

Table 19
WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 01 PEACE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
04	MINES,QUARRIES & OIL WELLS									
0402	MINERAL FUELS	9	1	1	7					
DIVISION TOTAL		9	1	1	7					
05	MANUFACTURING INDUSTRIES									
0501	FOOD AND BEVERAGES	2		1	1				1	2
0508	WOOD INDUSTRIES	1			1				1	1
0517	NON-METALLIC MINERAL PRODUCTS	3		2	1				1	3
DIVISION TOTAL		6		3	3				3	6
07	TRANS., COMM. & OTHER UTILITIE									
0704	ELEC. POWER, GAS & WATER UTILI	2		1	1					
DIVISION TOTAL		2		1	1					
RIV-BASN TOTAL		17	1	5	11				3	6

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 02 ATHABASCA

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
04	MINES,QUARRIES & OIL WELLS									
0402	MINERAL FUELS	7		1	6					
0404	QUARRIES AND SAND PITS	1			1					
DIVISION TOTAL		8		1	7					
05	MANUFACTURING INDUSTRIES									
0501	FOOD AND BEVERAGES	1		1						1
0510	PAPER & ALLIED INDUSTRIES	1			1					
DIVISION TOTAL		2		1	1					1
RIV-BASN TOTAL		10		2	8					1

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 03 NORTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
04	MINES,QUARRIES & OIL WELLS									
0402	MINERAL FUELS	12			12				1	1
0403	NON-METAL MINING (EXCEPT COAL)	1			1					
0404	QUARRIES AND SAND PITS	2		2						2
DIVISION TOTAL		15		2	13				1	3
05	MANUFACTURING INDUSTRIES									
0501	FOOD AND BEVERAGES	25		9	14			2	15	24
0503	RUBBER AND PLASTICS PRODUCTS	1		1						1
0504	LEATHER INDUSTRIES	1		1						1
0505	TEXTILES INDUSTRIES	1		1						1
0507	CLOTHING INDUSTRIES	1		1						1
0508	WOOD INDUSTRIES	2		1	1				1	2
0510	PAPER & ALLIED INDUSTRIES	3			3				1	1
0512	PRIMARY METAL INDUSTRIES	5		4			1			4
0513	METAL FABRICATING INDUSTRIES	6		5	1				1	6
0515	TRANSPORTATION EQUIP. INDUSTR	2			1			1	2	2
0517	NON-METALLIC MINERAL PRODUCTS	15	2	6	6	1			6	12
0518	PETROLEUM AND COAL PRODUCTS	5			3		2		1	1
0519	CHEMICAL & CHEMICAL PRODUCTS	16		7	5	1	2	1	4	8
0520	MISC. MANUFACTURING IND.	1		1						1
DIVISION TOTAL		84	2	37	34	2	5	4	31	65
07	TRANS., COMM. & OTHER UTILITIE									
0704	ELEC. POWER, GAS & WATER UTILI	5			5				1	1
DIVISION TOTAL		5			5				1	1
RIV-BASN TOTAL		104	2	39	52	2	5	4	33	69

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 04 RED DEER

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
04	MINES,QUARRIES & OIL WELLS									
0402	MINERAL FUELS	10			10					
DIVISION TOTAL		10			10					
05	MANUFACTURING INDUSTRIES									
0501	FOOD AND BEVERAGES	7		2	5				5	7
0517	NON-METALLIC MINERAL PRODUCTS	2			2				2	2
0518	PETROLEUM AND COAL PRODUCTS	1			1					
DIVISION TOTAL		10		2	8				7	9
RIV-BASN TOTAL		20		2	18				7	9

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 05 SOUTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
04	MINES,QUARRIES & OIL WELLS									
0402	MINERAL FUELS	18	1	1	16				1	1
0404	QUARRIES AND SAND PITS	3		2	1				1	1
DIVISION TOTAL		21	1	3	17				2	2
05	MANUFACTURING INDUSTRIES									
0501	FOOD AND BEVERAGES	52	9	24	18			1	18	47
0503	RUBBER AND PLASTICS PRODUCTS	4		4						4
0508	WOOD INDUSTRIES	2		1	1					1
0509	FURNITURE & FIXTURE INDUSTRIES	1	1							1
0510	PAPER & ALLIED INDUSTRIES	6	2	2	1			1	2	6
0511	PRINT, PUBLISH, & ALLIED INDUS	2		1	1					1
0512	PRIMARY METAL INDUSTRIES	7		5	2				2	7
0513	METAL FABRICATING INDUSTRIES	4	1	2	1				1	4
0514	MACHINERY INDUSTRIES	1	1							1
0515	TRANSPORTATION EQUIP. INDUSTR	2		1	1				1	2
0516	ELECTRICAL PRODUCTS INDUSTRIES	5	2	3						5
0517	NON-METALLIC MINERAL PRODUCTS	26	2	13	11				7	17
0518	PETROLEUM AND COAL PRODUCTS	3			2			1	1	1
0519	CHEMICAL & CHEMICAL PRODUCTS	6	1	1	3		1		2	4
DIVISION TOTAL		121	19	57	41		1	3	34	101
07	TRANS., COMM. & OTHER UTILITIE									
0704	ELEC. POWER, GAS & WATER UTILI	2		2						
DIVISION TOTAL		2		2						
RIV-BASN TOTAL		144	20	62	58		1	3	36	103

WATER USE BY RIVER BASIN - ALBERTA 1972
INTAKE WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
GRAND	TOTAL	295	23	110	147	2	6	7	79	188

Item VII B. Treatment of Water Recirculated - Tables 20, 21, 22, 23

This section was coded much like Item VII-A (Intake Water Treatment) except that the codes for "municipal" and "other" water systems were dropped. The remaining codes are the same except that they apply to recirculated water rather than intake water.

"No treatment" in this case does not necessarily mean that no water was recirculated. It only means that if water was recirculated, it was not treated before recirculation or reuse. The remainder of the responses are self-explanatory or are equivalent to their counterparts in Item VII-A.

Table 20

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

04 MINES, QUARRIES & OIL WELLS

STAND'D IND CLS CODE MIN	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
0402 MINERAL FUELS											
0402-061	960		316						960		
0402-064	119191	15610		10832	2977	98	88124	84382	6307		55988
MAJOR	120151	15610	316	10832	2977	98	88124	84382	7267		55988
0403 NON-METAL MINING (EXCEPT COAL)											
0403-079											
MAJOR											
0404 QUARRIES AND SAND PITS											
0404-087	4600								4600		
MAJOR	4600								4600		
DIVISION	124751	15610	316	10832	2977	98	88124	84382	11867		55988

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

05 MANUFACTURING INDUSTRIES

STAND'D IND CLS CODE MIN	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
0501 FOOD AND BEVERAGES											
0501-101	442				303		4	2	70	70	65
0501-103											
0501-104	79		7		2	1		3			65
0501-105											
0501-106	1							1			
0501-107											
0501-108	285						1	1	282		
0501-109	598				48	1	554	554			4
MAJOR	1405		7		353	2	559	561	352	70	134
0503 RUBBER AND PLASTICS PRODUCTS											
0503-162	60					5		60			
0503-165											
MAJOR	60					5		60			
0504 LEATHER INDUSTRIES											
0504-172											
MAJOR											
0505 TEXTILES INDUSTRIES											
0505-183											
MAJOR											
0507 CLOTHING INDUSTRIES											
0507-249											
MAJOR											
0508 WOOD INDUSTRIES											
0508-251											
0508-259	1				1		1	1			
MAJOR	1				1		1	1			
0509 FURNITURE & FIXTURE INDUSTRIES											
0509-264											
MAJOR											

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

05 MANUFACTURING INDUSTRIES

STAND'D IND CLS CODE MIN	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
0510 PAPER & ALLIED INDUSTRIES											
0510-271	241						241				
0510-272	26										
0510-273											
0510-274											
MAJOR	267						241				
0511 PRINT, PUBLISH, & ALLIED INDUS											
0511-289											
MAJOR											
0512 PRIMARY METAL INDUSTRIES											
0512-291											
0512-292											
0512-294											
0512-295											
0512-296	1				1						
0512-298											
MAJOR	1				1						
0513 METAL FABRICATING INDUSTRIES											
0513-302	3405										
0513-304											
0513-305											
0513-309											
MAJOR	3405										
0514 MACHINERY INDUSTRIES											
0514-315											
MAJOR											
0515 TRANSPORTATION EQUIP. INDUSTR											
0515-324											
0515-325											
0515-326	8	3	5				3	3			
MAJOR	8	3	5				3	3			
0516 ELECTRICAL PRODUCTS INDUSTRIES											

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

05 MANUFACTURING INDUSTRIES

STAND'D IND CLS CODE MIN	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
0516 ELECTRICAL PRODUCTS INDUSTRIES											
0516-338											
0516-339											
MAJOR											
0517 NON-METALLIC MINERAL PRODUCTS											
0517-351											
0517-352											
0517-354											
0517-355											
0517-356	269			50			219	219			219
0517-358	210								210		
0517-359											
MAJOR	479			50			219	219	210		219
0518 PETROLEUM AND COAL PRODUCTS											
0518-365	10975	193	17				193		11369	51	242
0518-369											
MAJOR	10975	193	17				193		11369	51	242
0519 CHEMICAL & CHEMICAL PRODUCTS											
0519-372	16184	16000					16134	16134			49
0519-373	123			46	64		102	102		32	8
0519-378	61471			204			68287	68240	6		
0519-379	9						10	1			
MAJOR	77787	16000		250	64		84533	84477	6	32	57
0520 MISC. MANUFACTURING IND.											
0520-399											
MAJOR											
DIVISION	94388	16196	29	300	419	7	85749	85321	11937	153	652

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

07 TRANS., COMM. & OTHER UTILITIE

STAND'D IND CLS CODE MIN	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
0704	ELEC. POWER, GAS & WATER UTILI										
0704-572	3450						3450	3450			
MAJOR	3450						3450	3450			
DIVISION	3450						3450	3450			

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

STAND'D IND CLS CODE MIN	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
GRAND	222589	31806	345	11132	3396	105	177323	173153	23804	153	56640

Table 21

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORP	YES& TOTL	YES& BKDN	YES& BLNK
04	MINES,QUARRIES & OIL WELLS							
0402	MINERAL FUELS	56	3	36	17			
0403	NON-METAL MINING (EXCEPT COAL)	1		1				
0404	QUARRIES AND SAND PITS	6		3	3			
DIVISION TOTAL		63	3	40	20			
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES	87	15	49	17		1	5
0503	RUBBER AND PLASTICS PRODUCTS	5		3	1			1
0504	LEATHER INDUSTRIES	1		1				
0505	TEXTILES INDUSTRIES	1			1			
0507	CLOTHING INDUSTRIES	1		1				
0508	WOOD INDUSTRIES	5	1	3	1			
0509	FURNITURE & FIXTURE INDUSTRIES	1	1					
0510	PAPER & ALLIED INDUSTRIES	10	2	5	2	1		
0511	PRINT, PUBLISH, & ALLIED INDUS	2		2				
0512	PRIMARY METAL INDUSTRIES	12		11	1			
0513	METAL FABRICATING INDUSTRIES	10	2	7				
0514	MACHINERY INDUSTRIES	1	1					
0515	TRANSPORTATION EQUIP. INDUSTR	4		2	2			
0516	ELECTRICAL PRODUCTS INDUSTRIES	5	2	3				
0517	NON-METALLIC MINERAL PRODUCTS	46	6	36	4			
0518	PETROLEUM AND COAL PRODUCTS	9		6	3			
0519	CHEMICAL & CHEMICAL PRODUCTS	22	1	10	7		2	2
0520	MISC. MANUFACTURING IND.	1		1				
DIVISION TOTAL		223	31	140	39	2	3	8
07	TRANS., COMM. & OTHER UTILITIE							
0704	ELEC. POWER, GAS & WATER UTILI	9		8	1			
DIVISION TOTAL		9		8	1			

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORP	YES& TOTL	YES& BKDN	YES& BLNK
GRAND	TOTAL	295	34	188	60	2	3	8

Table 22
WATER USE BY RIVER BASIN - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 01 PEACE

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
04 MINES,QUARRIES & OIL WELLS											
0402 MINERAL FUELS											
0402-064	86					74	86	74			
MAJOR	86					74	86	74			
DIVISION	86					74	86	74			
05 MANUFACTURING INDUSTRIES											
0501 FOOD AND BEVERAGES											
0501-101											
0501-109											
MAJOR											
0508 WOOD INDUSTRIES											
0508-251											
MAJOR											
0517 NON-METALLIC MINERAL PRODUCTS											
0517-355											
MAJOR											
DIVISION											
07 TRANS., COMM. & OTHER UTILITIE											
0704 ELEC. POWER, GAS & WATER UTILI											
0704-572	3450						3450	3450			
MAJOR	3450						3450	3450			
DIVISION	3450						3450	3450			
RIV-BASN	3536					74	3536	3524			

WATER USE BY RIVER BASIN - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 02 ATHABASCA

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
04 MINES, QUARRIES & OIL WELLS											
0402 MINERAL FUELS											
0402-061	960		316						960		
0402-064	14026				400		14026	14026			
MAJOR	14986		316		400		14026	14026	960		
0404 QUARRIES AND SAND PITS											
0404-087	4600								4600		
MAJOR	4600								4600		
DIVISION	19586		316		400		14026	14026	5560		
05 MANUFACTURING INDUSTRIES											
0501 FOOD AND BEVERAGES											
0501-104											
MAJOR											
0510 PAPER & ALLIED INDUSTRIES											
0510-271	241						241				
MAJOR	241						241				
DIVISION	241						241				
RIV-BASN	19827		316		400		14267	14026	5560		

WATER USE BY RIVER BASIN - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 03 NORTH SASK

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
04 MINES, QUARRIES & OIL WELLS											
0402 MINERAL FUELS											
0402-064	31862	6307		706			24806	31113	6307		24703
MAJOR	31862	6307		706			24806	31113	6307		24703
0403 NON-METAL MINING (EXCEPT COAL)											
0403-079											
MAJOR											
DIVISION	31862	6307		706			24806	31113	6307		24703
05 MANUFACTURING INDUSTRIES											
0501 FOOD AND BEVERAGES											
0501-101	68				3		2				63
0501-103											
0501-104	14		7		2	1		3			
0501-105											
0501-106											
0501-107							4	4			4
0501-109											
MAJOR	82		7		5	1	6	7			67
0504 LEATHER INDUSTRIES											
0504-172											
MAJOR											
0505 TEXTILES INDUSTRIES											
0505-183											
MAJOR											
0507 CLOTHING INDUSTRIES											
0507-249											
MAJOR											

WATER USE BY RIVER BASIN - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 03 NORTH SASK

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
0508 WOOD INDUSTRIES											
0508-251											
0508-259											
MAJOR											
0510 PAPER & ALLIED INDUSTRIES											
0510-272	26										
0510-273											
MAJOR	26										
0512 PRIMARY METAL INDUSTRIES											
0512-291											
0512-292											
0512-294											
0512-295											
MAJOR											
0513 METAL FABRICATING INDUSTRIES											
0513-302	3405										
0513-304											
MAJOR	3405										
0515 TRANSPORTATION EQUIP. INDUSTR											
0515-324											
0515-326	3		3				3		3		
MAJOR	3		3				3		3		
0517 NON-METALLIC MINERAL PRODUCTS											
0517-352											
0517-354											
0517-355											
0517-356	50			50							
MAJOR	50			50							

WATER USE BY RIVER BASIN - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 03 NORTH SASK

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
0518 PETROLEUM AND COAL PRODUCTS											
0518-365	10975	193	17				193		11369	51	242
0518-369											
MAJOR	10975	193	17				193		11369	51	242
0519 CHEMICAL & CHEMICAL PRODUCTS											
0519-372	16000	16000					16000	16000			
0519-373	123			46	64		102	102		32	8
0519-378	61471						61471	61424	6		
0519-379	9						10	1			
MAJOR	77603	16000		46	64		77583	77527	6	32	8
0520 MISC. MANUFACTURING IND.											
0520-399											
MAJOR											
DIVISION	92144	16196	24	96	69	1	77785	77537	11375	83	317
07 TRANS., COMM. & OTHER UTILITIE											
0704 ELEC. POWER, GAS & WATER UTILI											
0704-572											
MAJOR											
DIVISION											
RIV-BASN	124006	22503	24	802	69	1	102591	108650	17682	83	25020

WATER USE BY RIVER BASIN - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 04 RED DEER

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
04 MINES, QUARRIES & OIL WELLS											
0402 MINERAL FUELS											
0402-064	7320			220			7000				100
MAJOR	7320			220			7000				100
DIVISION	7320			220			7000				100
05 MANUFACTURING INDUSTRIES											
0501 FOOD AND BEVERAGES											
0501-101	2							2			2
0501-104	65										65
0501-109											
MAJOR	67							2			67
0518 PETROLEUM AND COAL PRODUCTS											
0518-365											
MAJOR											
DIVISION	67							2			67
RIV-BASN	7387			220			7000	2			167

WATER USE BY RIVER BASIN - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
04 MINES,QUARRIES & OIL WELLS											
0402 MINERAL FUELS											
0402-061											
0402-064	65897	9303		9906	2577	24	42206	39169			31185
MAJOR	65897	9303		9906	2577	24	42206	39169			31185
0404 QUARRIES AND SAND PITS											
0404-087											
MAJOR											
DIVISION	65897	9303		9906	2577	24	42206	39169			31185
05 MANUFACTURING INDUSTRIES											
0501 FOOD AND BEVERAGES											
0501-101	372				300		2		70	70	
0501-103											
0501-104											
0501-105											
0501-106	1							1			
0501-107											
0501-108	285						1	1	282		
0501-109	598				48	1	550	550			
MAJOR	1256				348	1	553	552	352	70	
0503 RUBBER AND PLASTICS PRODUCTS											
0503-162	60					5		60			
0503-165											
MAJOR	60					5		60			
0508 WOOD INDUSTRIES											
0508-251											
0508-259	1				1		1	1			
MAJOR	1				1		1	1			
0509 FURNITURE & FIXTURE INDUSTRIES											
0509-264											

WATER USE BY RIVER BASIN - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
0509 FURNITURE & FIXTURE INDUSTRIES											
MAJOR											
0510 PAPER & ALLIED INDUSTRIES											
0510-272											
0510-273											
0510-274											
MAJOR											
0511 PRINT, PUBLISH, & ALLIED INDUS											
0511-289											
MAJOR											
0512 PRIMARY METAL INDUSTRIES											
0512-292											
0512-294											
0512-295	1					1					
0512-298											
MAJOR	1					1					
0513 METAL FABRICATING INDUSTRIES											
0513-302											
0513-305											
0513-309											
MAJOR											
0514 MACHINERY INDUSTRIES											
0514-315											
MAJOR											
0515 TRANSPORTATION EQUIP. INDUSTR											
0515-325											

WATER USE BY RIVER BASIN - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN · 05 SOUTH SASK

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULATION	TREAT BY FILTRATION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
0515 TRANSPORTATION EQUIP. INDUSTR											
0515-326	5		5								
MAJOR	5		5								
0516 ELECTRICAL PRODUCTS INDUSTRIES											
0516-338											
0516-339											
MAJOR											
0517 NON-METALLIC MINERAL PRODUCTS											
0517-351											
0517-352											
0517-354											
0517-355											
0517-356	219						219	219			219
0517-358	210								210		
0517-359											
MAJOR	429						219	219	210		219
0518 PETROLEUM AND COAL PRODUCTS											
0518-365											
0518-369											
MAJOR											
0519 CHEMICAL & CHEMICAL PRODUCTS											
0519-372	184						134	134			49
0519-378				204			6816	6816			
0519-379											
MAJOR	184			204			6950	6950			49
DIVISION	1936		5	204	350	6	7723	7782	562	70	268
07 TRANS., COMM. & OTHER UTILITIE											
0704 ELEC. POWER, GAS & WATER UTILI											
0704-572											

WATER USE BY RIVER BASIN - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
RIV-BASN	67833	9303	5	10110	2927	30	49929	46951	562	70	31453

WATER USE BY RIVER BASIN - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

STANDARD INDUST'L CLAS COD	TOTAL QUANTITY TREATED	TREAT BY AERATION	TREAT BY COAGULA-TION	TREAT BY FILTRA-TION	TREAT BY SOFTENING	TREAT BY ION EXCHANGE	TREAT BY CORROSION CONTROL	TREAT BY PH CONTROL	TREAT BY SETTLING	TREAT BY FLOTATION	OTHER TREATMENT
GRAND	222589	31806	345	11132	3396	105	177323	173153	23804	153	56640

Table 23

WATER USE BY RIVER BASIN - ALBERTA 1972

RECIRCULATED WATER TREATED BY METHOD OF TREATMENT

SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 01 PEACE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK
04	MINES,QUARRIES & OIL WELLS							
0402	MINERAL FUELS	9	1	6	2			
DIVISION TOTAL		9	1	6	2			
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES	2		2				
0508	WOOD INDUSTRIES	1	1					
0517	NON-METALLIC MINERAL PRODUCTS	3		3				
DIVISION TOTAL		6	1	5				
07	TRANS., COMM. & OTHER UTILITIE							
0704	ELEC. POWER, GAS & WATER UTILI	2		1	1			
DIVISION TOTAL		2		1	1			
RIV-BASN TOTAL		17	2	12	3			

WATER USE BY RIVER BASIN - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 02 ATHABASCA

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORP	YES& TOTL	YES& BKDN	YES& BLNK
04	MINES,QUARRIES & OIL WELLS							
0402	MINERAL FUELS	7		4	3			
0404	QUARRIES AND SAND PITS	1			1			
DIVISION TOTAL		8		4	4			
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES	1						1
0510	PAPER & ALLIED INDUSTRIES	1			1			
DIVISION TOTAL		2			1			1
RIV-BASN TOTAL		10		4	5			1

WATER USE BY RIVER BASIN - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 03 NORTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK
04	MINES,QUARRIES & OIL WELLS							
0402	MINERAL FUELS	12		10	2			
0403	NON-METAL MINING (EXCEPT COAL)	1		1				
0404	QUARRIES AND SAND PITS	2		2				
DIVISION TOTAL		15		13	2			
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES	25	2	13	7		1	2
0503	RUBBER AND PLASTICS PRODUCTS	1						1
0504	LEATHER INDUSTRIES	1		1				
0505	TEXTILES INDUSTRIES	1			1			
0507	CLOTHING INDUSTRIES	1		1				
0508	WOOD INDUSTRIES	2		2				
0510	PAPER & ALLIED INDUSTRIES	3		2		1		
0512	PRIMARY METAL INDUSTRIES	5		5				
0513	METAL FABRICATING INDUSTRIES	6		5		1		
0515	TRANSPORTATION EQUIP. INDUSTR	2		1	1			
0517	NON-METALLIC MINERAL PRODUCTS	15	3	11	1			
0518	PETROLEUM AND COAL PRODUCTS	5		2	3			
0519	CHEMICAL & CHEMICAL PRODUCTS	16		7	6		1	2
0520	MISC. MANUFACTURING IND.	1		1				
DIVISION TOTAL		84	5	51	19	2	2	5
07	TRANS., COMM. & OTHER UTILITIE							
0704	ELEC. POWER, GAS & WATER UTILI	5		5				
DIVISION TOTAL		5		5				
RIV-BASN TOTAL		104	5	69	21	2	2	5

WATER USE BY RIVER BASIN - ALBERTA 1972

RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 04 RED DEER

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK
04	MINES,QUARRIES & OIL WELLS							
0402	MINERAL FUELS	10	1	7	2			
DIVISION TOTAL		10	1	7	2			
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES	7	2	3	2			
0517	NON-METALLIC MINERAL PRODUCTS	2		2				
0518	PETROLEUM AND COAL PRODUCTS	1		1				
DIVISION TOTAL		10	2	6	2			
RIV-BASN TOTAL		20	3	13	4			

WATER USE BY RIVER BASIN - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 05 SOUTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK
04	MINES,QUARRIES & OIL WELLS							
0402	MINERAL FUELS	18	1	9	8			
0404	QUARRIES AND SAND PITS	3		1	2			
DIVISION TOTAL		21	1	10	10			
05	MANUFACTURING INDUSTRIES							
0501	FOOD AND BEVERAGES	52	11	31	8			2
0503	RUBBER AND PLASTICS PRODUCTS	4		3	1			
0508	WOOD INDUSTRIES	2		1	1			
0509	FURNITURE & FIXTURE INDUSTRIES	1	1					
0510	PAPER & ALLIED INDUSTRIES	6	2	3	1			
0511	PRINT, PUBLISH, & ALLIED INDUS	2		2				
0512	PRIMARY METAL INDUSTRIES	7		6	1			
0513	METAL FABRICATING INDUSTRIES	4	2	2				
0514	MACHINERY INDUSTRIES	1	1					
0515	TRANSPORTATION EQUIP. INDUSTR	2		1	1			
0516	ELECTRICAL PRODUCTS INDUSTRIES	5	2	3				
0517	NON-METALLIC MINERAL PRODUCTS	26	3	20	3			
0518	PETROLEUM AND COAL PRODUCTS	3		3				
0519	CHEMICAL & CHEMICAL PRODUCTS	6	1	3	1		1	
DIVISION TOTAL		121	23	78	17		1	2
07	TRANS., COMM. & OTHER UTILITIE							
0701	ELEC. POWER, GAS & WATER UTILI	2		2				
DIVISION TOTAL		2		2				
RIV-BASN TOTAL		144	24	90	27		1	2

WATER USE BY RIVER BASIN - ALBERTA 1972
RECIRCULATED WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK
GRAND	TOTAL	295	34	188	60	2	3	8

ITEM VII-C. Treatment of Discharged Water - Tables 24, 25, 26, 27

Coding of responses to this item is also similar to the coding in Item VII-A. The only difference is that codes apply to treatment of water before discharge rather than upon intake. Once again, the system into which the majority of water is discharged is identified as "municipal" or "other", as in Item VII-A.

Table 24
WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

04 MINES, QUARRIES & OIL WELLS

STAND'D IND CLS CODE MIN	AMOUNT DISCHARGE TREATED	TREAT BY COAGULATION	BY PRIMARY SETTLING	BY SECONDARY SETTLING	BY TRICKLING FILTERS	BY DIGESTION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRATION	BY CHLORINATION	BY FLOATATION	OTHER TREATMENT
0402 MINERAL FUELS												
0402-061	120		120	120		15	120					505
0402-064	1251	17	315	88	27	5	331	130	535	30		
MAJOR	1371	17	435	208	27	20	451	130	535	30		505
0403 NON-METAL MINING (EXCEPT COAL)												
0403-079												
MAJOR												
0404 QUARRIES AND SAND PITS												
0404-087	2760		2760	2760			2760					2760
MAJOR	2760		2760	2760			2760					2760
DIVISION	4131	17	3195	2968	27	20	3211	130	535	30		3265

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

05 MANUFACTURING INDUSTRIES

STAND'D IND CLS CODE MIN	AMOUNT DISCHARGE TREATED	TREAT BY COAGULA-TION	BY PRIM-ARY SET-TLING	BY SEC-ONDARY SETTLING	BY TRICK LING FILTERS	BY DIGES-TION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRA-TION	BY CHLORIN-ATION	BY FLOATA-TION	OTHER TREAT-MENT
0501 FOOD AND BEVERAGES												
0501-101	1465	791	561	8			160			600	1073	286
0501-103	82						80			3		
0501-104	1							1				
0501-105												
0501-106	140	140	140								140	
0501-107												
0501-108	1106		5	1						1		1100
0501-109												
MAJOR	2794	931	706	9			240	1		604	1213	1386
0503 RUBBER AND PLASTICS PRODUCTS												
0503-162	62							62				
0503-165												
MAJOR	62							62				
0504 LEATHER INDUSTRIES												
0504-172	44		44									44
MAJOR	44		44									44
0505 TEXTILES INDUSTRIES												
0505-183												
MAJOR												
0507 CLOTHING INDUSTRIES												
0507-249												
MAJOR												
0508 WOOD INDUSTRIES												
0508-251												
0508-259	4						5					
MAJOR	4						5					
0509 FURNITURE & FIXTURE INDUSTRIES												
0509-264												
MAJOR												

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

05 MANUFACTURING INDUSTRIES

STAND'D IND CLS CODE MIN	AMOUNT DISCHARGE TREATED	TREAT BY COAGULA-TION	BY PRIM-ARY SET-TLING	BY SEC-ONDARY SETTLING	BY TRICK LING FILTERS	BY DIGES-TION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRA-TION	BY CHLORIN-ATION	BY FLOATA-TION	OTHER TREAT-MENT
0510 PAPER & ALLIED INDUSTRIES												
0510-271			4907				5364					
0510-272												
0510-273	1		1	1								
0510-274												
MAJOR	1		4908	1			5364					
0511 PRINT, PUBLISH, & ALLIED INDUS												
0511-289												
MAJOR												
0512 PRIMARY METAL INDUSTRIES												
0512-291												
0512-292												
0512-294												
0512-295												
0512-296												
0512-298												
MAJOR												
0513 METAL FABRICATING INDUSTRIES												
0513-302												
0513-304												
0513-305												
0513-309												
MAJOR												
0514 MACHINERY INDUSTRIES												
0514-315												
MAJOR												
0515 TRANSPORTATION EQUIP. INDUSTR												
0515-324												
0515-325												
0515-326	5		2								3	3
MAJOR	5		2								3	3
0516 ELECTRICAL PRODUCTS INDUSTRIES												

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

05 MANUFACTURING INDUSTRIES

STAND'D IND CLS CODE MIN	AMOUNT DISCHARGE TREATED	TREAT BY COAGULA-TION	BY PRIM-ARY SET-TLING	BY SEC-ONDARY SETTLING	BY TRICK LING FILTERS	BY DIGES-TION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRA-TION	BY CHLORIN-ATION	BY FLOATA-TION	OTHER TREAT-MENT
0516 ELECTRICAL PRODUCTS INDUSTRIES												
0516-338								47				
0516-339	48		1									
MAJOR	48		1					47				
0517 NON-METALLIC MINERAL PRODUCTS												
0517-351												
0517-352							3					
0517-354	3		42									
0517-355	421		390	390			421					
0517-356												
0517-358	26		26	26			26					
0517-359												
MAJOR	450		458	416			450					
0518 PETROLEUM AND COAL PRODUCTS												
0518-365	3176		3083	10			1090				10	232
0518-369	102		18									18
MAJOR	3278		3101	10			1090				10	250
0519 CHEMICAL & CHEMICAL PRODUCTS												
0519-372	403		377				403		27			
0519-373	27		16	27		1		63				
0519-378	397		396									
0519-379	1		1									
MAJOR	828		790	27		1	403	63	27			
0520 MISC. MANUFACTURING IND.												
0520-399												
MAJOR DIVISION	7514	931	10010	463		1	7552	173	27	604	1226	1683

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

07 TRANS., COMM. & OTHER UTILITIE

STAND'D IND CLS CODE MIN	AMOUNT DISCHARGE TREATED	TREAT BY COAGULA-TION	BY PRIM-ARY SET-TLING	BY SEC-ONDARY SETTLING	BY TRICK LING FILTERS	BY DIGES-TION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRA-TION	BY CHLORIN-ATION	BY FLOATA-TION	OTHER TREAT-MENT
0704	ELEC. POWER, GAS & WATER UTILI											
0704-572	46790	100	104	100			5204		100	100		
MAJOR	46790	100	104	100			5204		100	100		
DIVISION	46790	100	104	100			5204		100	100		

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

STAND'D IND CLS CODE MIN	AMOUNT DISCHARGE TREATED	TREAT BY COAGULA-TION	BY PRIM-ARY SET-TLING	BY SEC-ONDARY SETTLING	BY TRICK LING FILTERS	BY DIGES-TION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRA-TION	BY CHLORIN-ATION	BY FLOATA-TION	OTHER TREAT-MENT
GRAND	58435	1048	13309	3531	27	21	15967	303	662	734	1226	4948

Table 25

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972

DISCHARGE WATER TREATED BY METHOD OF TREATMENT

SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
04	MINES,QUARRIES & OIL WELLS									
0402	MINERAL FUELS	56	1	13	39		1	2		
0403	NON-METAL MINING (EXCEPT COAL)	1		1						
0404	QUARRIES AND SAND PITS	6		4	2					2
DIVISION TOTAL		63	1	18	41		1	2		2
05	MANUFACTURING INDUSTRIES									
0501	FOOD AND BEVERAGES	87	9	49	26		1	2	25	79
0503	RUBBER AND PLASTICS PRODUCTS	5		4	1				1	4
0504	LEATHER INDUSTRIES	1			1				1	1
0505	TEXTILES INDUSTRIES	1			1					
0507	CLOTHING INDUSTRIES	1		1						1
0508	WOOD INDUSTRIES	5		3	1		1		1	4
0509	FURNITURE & FIXTURE INDUSTRIES	1	1							
0510	PAPER & ALLIED INDUSTRIES	10	2	5	2			1	2	6
0511	PRINT, PUBLISH, & ALLIED INDUS	2		2						1
0512	PRIMARY METAL INDUSTRIES	12		10				2	2	10
0513	METAL FABRICATING INDUSTRIES	10	2	8						9
0514	MACHINERY INDUSTRIES	1	1							
0515	TRANSPORTATION EQUIP. INDUSTR	4		2	2				2	4
0516	ELECTRICAL PRODUCTS INDUSTRIES	5	1	2	2				2	4
0517	NON-METALLIC MINERAL PRODUCTS	46	4	36	5		1		1	20
0518	PETROLEUM AND COAL PRODUCTS	9		1	7	1			1	2
0519	CHEMICAL & CHEMICAL PRODUCTS	22	1	14	6		1		1	10
0520	MISC. MANUFACTURING IND.	1		1						1
DIVISION TOTAL		223	21	138	54	1	4	5	39	156
07	TRANS., COMM. & OTHER UTILITIE									
0704	ELEC. POWER, GAS & WATER UTILI	9		3	5		1			1
DIVISION TOTAL		9		3	5		1			1

WATER USE BY INDUSTRIAL CLASSIFICATION - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
GRAND	TOTAL	295	22	159	100	1	6	7	39	159

Table 26
WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 01 PEACE

	AMOUNT DISCHARGE TREATED	TREAT BY COAGULA-TION	BY PRIM-ARY SET-TLING	BY SEC-ONDARY SETTLING	BY TRICK LING FILTERS	BY DIGES-TION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRA-TION	BY CHLORIN-ATION	BY FLOATA-TION	OTHER TREAT-MENT
04 MINES, QUARRIES & OIL WELLS												
0402 MINERAL FUELS												
0402-064	90		1				89	1	72			1
MAJOR	90		1				89	1	72			1
DIVISION	90		1				89	1	72			1
05 MANUFACTURING INDUSTRIES												
0501 FOOD AND BEVERAGES												
0501-101	8										8	
0501-109												
MAJOR	8										8	
0508 WOOD INDUSTRIES												
0508-251												
MAJOR												
0517 NON-METALLIC MINERAL PRODUCTS												
0517-355												
MAJOR												
DIVISION	8										8	
07 TRANS., COMM. & OTHER UTILITIE												
0704 ELEC. POWER, GAS & WATER UTILI												
0704-572												
MAJOR												
DIVISION												
RIV-BASN	98		1				89	1	72		8	1

WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 02 ATHABASCA

	AMOUNT DISCHARGE TREATED	TREAT BY COAGULA-TION	BY PRIM-ARY SET-TLING	BY SEC-ONDARY SETTLING	BY TRICK LING FILTERS	BY DIGES-TION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRA-TION	BY CHLORIN-ATION	BY FLOATA-TION	OTHER TREAT-MENT
04 MINES, QUARRIES & OIL WELLS												
0402 MINERAL FUELS												
0402-061	120		120	120		15	120					
0402-064	173		82	17		5	70	18	15			89
MAJOR	293		202	137		20	190	18	15			89
0404 QUARRIES AND SAND PITS												
0404-087	2760		2760	2760			2760					2760
MAJOR	2760		2760	2760			2760					2760
DIVISION	3053		2962	2897		20	2950	18	15			2849
05 MANUFACTURING INDUSTRIES												
0501 FOOD AND BEVERAGES												
0501-104												
MAJOR												
0510 PAPER & ALLIED INDUSTRIES												
0510-271			4907				5364					
MAJOR			4907				5364					
DIVISION			4907				5364					
RIV-BASN	3053		7869	2897		20	8314	18	15			2849

WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 03 NORTH SASK

	AMOUNT DISCHARGE TREATED	TREAT BY COAGULA-TION	BY PRIM-ARY SET-TLING	BY SEC-ONDARY SETTLING	BY TRICK LING FILTERS	BY DIGES-TION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRA-TION	BY CHLORIN-ATION	BY FLOATA-TION	OTHER TREAT-MENT
04 MINES,QUARRIES & OIL WELLS												
0402 MINERAL FUELS												
0402-064	539		27				12		414	26		178
MAJOR	539		27				12		414	26		178
0403 NON-METAL MINING (EXCEPT COAL)												
0403-079												
MAJOR												
DIVISION	539		27				12		414	26		178
05 MANUFACTURING INDUSTRIES												
0501 FOOD AND BEVERAGES												
0501-101	313	92	309	8							213	275
0501-103												
0501-104	1							1				
0501-105												
0501-106	140	140	140								140	
0501-107												
0501-109												
MAJOR	454	232	449	8				1			353	275
0504 LEATHER INDUSTRIES												
0504-172	44		44									44
MAJOR	44		44									44
0505 TEXTILES INDUSTRIES												
0505-183												
MAJOR												
0507 CLOTHING INDUSTRIES												
0507-249												
MAJOR												

WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 03 NORTH SASK

	AMOUNT DISCHARGE TREATED	TREAT BY COAGULA-TION	BY PRIM-ARY SET-TLING	BY SEC-ONDARY SETTLING	BY TRICK LING FILTERS	BY DIGES-TION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRA-TION	BY CHLORIN-ATION	BY FLOATA-TION	OTHER TREAT-MENT
0508 WOOD INDUSTRIES												
0508-251												
0508-259							1					
MAJOR							1					
0510 PAPER & ALLIED INDUSTRIES												
0510-272												
0510-273												
MAJOR												
0512 PRIMARY METAL INDUSTRIES												
0512-291												
0512-292												
0512-294												
0512-295												
MAJOR												
0513 METAL FABRICATING INDUSTRIES												
0513-302												
0513-304												
MAJOR												
0515 TRANSPORTATION EQUIP. INDUSTR												
0515-324												
0515-326	2			2								
MAJOR	2			2								
0517 NON-METALLIC MINERAL PRODUCTS												
0517-352												
0517-354	3						3					
0517-355												
0517-356												
MAJOR	3						3					

WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 03 NORTH SASK

	AMOUNT DISCHARGE TREATED	TREAT BY COAGULA-TION	BY PRIM-ARY SET-TLING	BY SEC-ONDARY SETTLING	BY TRICK LING FILTERS	BY DIGES-TION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRA-TION	BY CHLORIN-ATION	BY FLOATA-TION	OTHER TREAT-MENT
0518 PETROLEUM AND COAL PRODUCTS												
0518-365	1238		1145	10			1082				10	232
0518-369	84											
MAJOR	1322		1145	10			1082				10	232
0519 CHEMICAL & CHEMICAL PRODUCTS												
0519-372	377		377				377					
0519-373	27		16	27					27			
0519-378	397		396			1		63				
0519-379	1		1									
MAJOR	802		790	27		1	377	63	27			
0520 MISC. MANUFACTURING IND.												
0520-369												
MAJOR												
DIVISION	2627	232	2430	45		1	1463	64	27		363	551
07 TRANS., COMM. & OTHER UTILITIE												
0704 ELEC. POWER, GAS & WATER UTILI												
0704-572	46690		4				5204					
MAJOR	46690		4				5204					
DIVISION	46690		4				5204					
RIV-EASN	49656	232	2461	45		1	6679	64	441	26	363	729

WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 04 RED DEER

	AMOUNT DISCHARGE TREATED	TREAT BY COAGULA-TION	BY PRIM-ARY SET-TLING	BY SEC-ONDARY SETTLING	BY TRICK LING FILTERS	BY DIGES-TION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRA-TION	BY CHLORIN-ATION	BY FLOATA-TION	OTHER TREAT-MENT
04 MINES,QUARRIES & OIL WELLS												
0402 MINERAL FUELS												
0402-064	85		65	4	4		37			4		44
MAJOR	85		65	4	4		37			4		44
DIVISION	85		65	4	4		37			4		44
05 MANUFACTURING INDUSTRIES												
0501 FOOD AND BEVERAGES												
0501-101 0501-104 0501-109	82		71								6	11
MAJOR	82		71								6	11
0518 PETROLEUM AND COAL PRODUCTS												
0518-365	8		8				8					
MAJOR	8		8				8					
DIVISION	90		79				8				6	11
RIV-BASN	175		144	4	4		45			4	6	55

WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

	AMOUNT DISCHARGE TREATED	TREAT BY COAGULATION	BY PRIMARY SETTLING	BY SECONDARY SETTLING	BY TRICKLING FILTERS	BY DIGESTION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRATION	BY CHLORINATION	BY FLOATATION	OTHER TREATMENT
04 MINES, QUARRIES & OIL WELLS												
0402 MINERAL FUELS												
0402-061												
0402-064	364	17	140	67	23		123	111	34			193
MAJOR	364	17	140	67	23		123	111	34			193
0404 QUARRIES AND SAND PITS												
0404-087												
MAJOR												
DIVISION	364	17	140	67	23		123	111	34			193
05 MANUFACTURING INDUSTRIES												
0501 FOOD AND BEVERAGES												
0501-101	1062	699	181				160			600	846	
0501-103	82						80			3		
0501-104												
0501-105												
0501-106												
0501-107												
0501-108	1106		5	1						1		1100
0501-109												
MAJOR	2250	699	186	1			240			604	846	1100
0503 RUBBER AND PLASTICS PRODUCTS												
0503-162	62							62				
0503-165												
MAJOR	62							62				
0508 WOOD INDUSTRIES												
0508-251												
0508-259	4						4					
MAJOR	4						4					
0509 FURNITURE & FIXTURE INDUSTRIES												
0509-264												

WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

	AMOUNT DISCHARGE TREATED	TREAT BY COAGULA-TION	BY PRIM-ARY SET-TLING	BY SEC-ONDARY SETTLING	BY TRICK LING FILTERS	BY DIGES-TION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRA-TION	BY CHLORIN-ATION	BY FLOATA-TION	OTHER TREAT-MENT
0509 FURNITURE & FIXTURE INDUSTRIES												
MAJOR												
0510 PAPER & ALLIED INDUSTRIES												
0510-272 0510-273 0510-274	1		1		1							
MAJOR	1		1		1							
0511 PRINT. PUBLISH. & ALLIED INDUS												
0511-289												
MAJOR												
0512 PRIMARY METAL INDUSTRIES												
0512-292 0512-294 0512-296 0512-298												
MAJOR												
0513 METAL FABRICATING INDUSTRIES												
0513-302 0513-305 0513-309												
MAJOR												
0514 MACHINERY INDUSTRIES												
0514-315												
MAJOR												
0515 TRANSPORTATION EQUIP. INDUSTR												
0515-325												

WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

	AMOUNT DISCHARGE TREATED	TREAT BY COAGULATION	BY PRIMARY SETTLING	BY SECONDARY SETTLING	BY TRICKLING FILTERS	BY DIGESTION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRATION	BY CHLORINATION	BY FLOATATION	OTHER TREATMENT
0515 TRANSPORTATION EQUIP. INDUSTR												
0515-326	3										3	3
MAJOR	3										3	3
0516 ELECTRICAL PRODUCTS INDUSTRIES												
0516-338												
0516-339	48		1					47				
MAJOR	48		1					47				
0517 NON-METALLIC MINERAL PRODUCTS												
0517-351												
0517-352												
0517-354			42									
0517-355	421		390	390			421					
0517-356												
0517-358	26		26	26			26					
0517-359												
MAJOR	447		458	416			447					
0518 PETROLEUM AND COAL PRODUCTS												
0518-365	1930		1930									
0518-369	18		18									18
MAJOR	1948		1948									18
0519 CHEMICAL & CHEMICAL PRODUCTS												
0519-372	26						26					
0519-378												
0519-379												
MAJOR	26						26					
DIVISION	4789	699	2594	418			717	109		604	849	1121
07 TRANS., COMM. & OTHER UTILITIE												
0704 ELEC. POWER, GAS & WATER UTILI												
0704-572	100	100	100	100					100	100		

WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

BASIN 05 SOUTH SASK

	AMOUNT DISCHARGE TREATED	TREAT BY COAGULA-TION	BY PRIM-ARY SET-TLING	BY SEC-ONDARY SETTLING	BY TRICK LING FILTERS	BY DIGES-TION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRA-TION	BY CHLORIN-ATION	BY FLOATA-TION	OTHER TREAT-MENT
07 TRANS., COMM. & OTHER UTILITIE												
0704 ELEC. POWER, GAS & WATER UTILI												
MAJOR	100	100	100	100					100	100		
DIVISION	100	100	100	100					100	100		
RIV-PASN	5253	816	2834	585	23		840	220	134	704	849	1314

WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
(MILLIONS OF GALLONS)

	AMOUNT DISCHARGE TREATED	TREAT BY COAGULA-TION	BY PRIM-ARY SET-TLING	BY SEC-ONDARY SETTLING	BY TRICK LING FILTERS	BY DIGES-TION	BY PONDS OR LOGOONS	BY PH CONTROL	BY SAND FILTRA-TION	BY CHLORIN-ATION	BY FLOATA-TION	OTHER TREAT-MENT
GRAND	58435	1048	13309	3531	27	21	15967	303	662	734	1226	4948

Table 27

WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 01 PEACE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TPMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
04	MINES, QUARRIES & OIL WELLS									
0402	MINERAL FUELS	9	1	5	3					
DIVISION TOTAL		9	1	5	3					
05	MANUFACTURING INDUSTRIES									
0501	FOOD AND BEVERAGES	2		1	1				1	2
0508	WOOD INDUSTRIES	1		1						1
0517	NON-METALLIC MINERAL PRODUCTS	3		3						2
DIVISION TOTAL		6		5	1				1	5
07	TRANS., COMM. & OTHER UTILITIE									
0704	ELEC. POWER, GAS & WATER UTILI	2			2					
DIVISION TOTAL		2			2					
RIV-BASN TOTAL		17	1	10	6				1	5

WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 02 ATHABASCA

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
04	MINES,QUARRIES & OIL WELLS									
0402	MINERAL FUELS	7		1	4		1	1		
0404	QUARRIES AND SAND PITS	1			1					
DIVISION TOTAL		8		1	5		1	1		
05	MANUFACTURING INDUSTRIES									
0501	FOOD AND BEVERAGES	1		1						
0510	PAPER & ALLIED INDUSTRIES	1			1					
DIVISION TOTAL		2		1	1					
RIV-BASN TOTAL		10		2	6		1	1		

WATER USE BY RIVER BASIN - ALBERTA 1972

DISCHARGE WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 03 NORTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
04	MINES,QUARRIES & OIL WELLS									
0402	MINERAL FUELS	12		2	10					
0403	NON-METAL MINING (EXCEPT COAL)	1		1						
0404	QUARRIES AND SAND PITS	2		2						2
DIVISION TOTAL		15		5	10					2
05	MANUFACTURING INDUSTRIES									
0501	FOOD AND BEVERAGES	25	1	16	6		1	1	8	24
0503	RUBBER AND PLASTICS PRODUCTS	1		1						
0504	LEATHER INDUSTRIES	1			1				1	1
0505	TEXTILES INDUSTRIES	1			1					
0507	CLOTHING INDUSTRIES	1		1						1
0508	WOOD INDUSTRIES	2		1			1		1	2
0510	PAPER & ALLIED INDUSTRIES	3		3						1
0512	PRIMARY METAL INDUSTRIES	5		3				2	2	4
0513	METAL FABRICATING INDUSTRIES	6		6						5
0515	TRANSPORTATION EQUIP. INDUSTR	2		1	1				1	2
0517	NON-METALLIC MINERAL PRODUCTS	15	2	12	1					8
0518	PETROLEUM AND COAL PRODUCTS	5			4	1			1	1
0519	CHEMICAL & CHEMICAL PRODUCTS	16		11	5				1	8
0520	MISC. MANUFACTURING IND.	1		1						1
DIVISION TOTAL		84	3	56	19	1	2	3	15	58
07	TRANS., COMM. & OTHER UTILITIE									
0704	ELEC. POWER, GAS & WATER UTILI	5		2	2		1			1
DIVISION TOTAL		5		2	2		1			1
RIV-BASN TOTAL		104	3	63	31	1	3	3	15	61

WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 04 RED DEER

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
04	MINES,QUARRIES & OIL WELLS									
0302	MINERAL FUELS	10			10					
DIVISION TOTAL		10			10					
05	MANUFACTURING INDUSTRIES									
0501	FOOD AND BEVERAGES	7	1	4	2				2	7
0517	NON-METALLIC MINERAL PRODUCTS	2		2						1
0518	PETROLEUM AND COAL PRODUCTS	1			1					
DIVISION TOTAL		10	1	6	3				2	8
RIV-BASN TOTAL		20	1	6	13				2	8

WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

BASIN 05 SOUTH SASK

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
04	MINES,QUARRIES & OIL WELLS									
0402	MINERAL FUELS	18		5	12			1		
0404	QUARRIES AND SAND PITS	3		2	1					
DIVISION TOTAL		21		7	13			1		
05	MANUFACTURING INDUSTRIES									
0502	FOOD AND BEVERAGES	92	7	27	17			1	14	46
0503	RUBBER AND PLASTICS PRODUCTS	4		3	1				1	4
0508	WOOD INDUSTRIES	2		1	1					1
0509	FURNITURE & FIXTURE INDUSTRIES	1	1							
0510	PAPER & ALLIED INDUSTRIES	6	2	2	1			1	2	5
0511	PRINT, PUBLISH, & ALLIED INDUS	2		2						1
0512	PRIMARY METAL INDUSTRIES	7		7						5
0513	METAL FABRICATING INDUSTRIES	4	2	2						4
0514	MACHINERY INDUSTRIES	1	1							
0515	TRANSPORTATION EQUIP. INDUSTR	2		1	1				1	2
0516	ELECTRICAL PRODUCTS INDUSTRIES	5	1	2	2				2	4
0517	NON-METALLIC MINERAL PRODUCTS	26	2	19	4		1		1	9
0518	PETROLEUM AND COAL PRODUCTS	3		1	2					1
0519	CHEMICAL & CHEMICAL PRODUCTS	6	1	3	1		1			2
DIVISION TOTAL		121	17	70	30		2	2	21	85
07	TRANS., COMM. & OTHER UTILITIE									
0704	ELEC. POWER, GAS & WATER UTILI	2		1	1					
DIVISION TOTAL		2		1	1					
RIV-BASN TOTAL		144	17	78	44		2	3	21	85

WATER USE BY RIVER BASIN - ALBERTA 1972
DISCHARGE WATER TREATED BY METHOD OF TREATMENT
SUMMARY OF QUESTIONAIRE RESPONSE

SIC CODE	STANDARD INDUSTRIAL CLASSIFICATION	TOTL QUES	BLNK	NO TRMT	YES& CORR	YES& TOTL	YES& BKDN	YES& BLNK	YES& MCPL	MCPL SUPL
GRAND	TOTAL	295	22	159	100	1	6	7	39	159

APPENDIX I

DETAILED WATER USE QUESTIONNAIRE, 1972

INDUSTRIAL WATER USE

1972

RETURN TO

ALBERTA DEPARTMENT OF THE ENVIRONMENT
10040 – 104 Street
Edmonton, Alberta
T5J 0Z6

Name of person we may contact regarding this report:	Address (Number, street, city)	Postal code	Telephone No.	Extension
Signature	Title		Date	

INSTRUCTIONS

GENERAL — Please report all quantities in imperial gallons. Do not report in gallons per minute or gallons per day.

If no water is used, treated, or discharged, report "None." If your records on water used are in cubic feet, convert to gallons (1 cubic foot equals 6.2 gallons). Reasonably accurate estimates are acceptable.

If you are in charge of several plants, please request additional questionnaires from us and fill out one questionnaire per plant.

Item I — WATER INTAKE BY KIND AND SOURCE

1. List water supplied by a water system other than your own (whether municipally or privately owned).

2. through 4. List water obtained from your own water supply system.

3. If you have more than one ground water system (well), please list total intake from them. Please list their locations under remarks.

Item II — WATER INTAKE BY PURPOSE

1. Process water is all water that comes directly in contact with products and/or materials, including water which is consumed in the manufacture of products.

2, 3, 5, and 6 — Self-explanatory

4. Include water which is used for cooling and condensing purposes in conjunction with the operation of process equipment, but which does not come in direct contact with products or materials.

Item III — WATER RECIRCULATED AND REUSED BY PURPOSE

If no water was recirculated or reused, mark "No" on line 1 and skip to item IV.

If you recirculated or reused water, mark "Yes" on line 1 and report on lines 2 through 7 the estimated quantity of water that would have been required if no water had been recirculated or reused. For example: if total water intake (item I) was 400 million gallons and of this 400 million gallons, 100 million gallons were used twice for cooling purposes and once for washing products or materials, the total water required would be 300 million gallons (less consumption and evaporation loss), plus the 300 million gallons not recirculated, for a total of 600 million gallons. Distribute this total (600 million) by the purposes for which it was used.

Item IV — WATER DISCHARGED BY POINT OF DISCHARGE

Include all water brought to ultimate discharge point whether treated or not. Do not include water held in your ponds, lagoons, or basins, for reuse or treatment, until actually discharged. Do not report water evaporated or otherwise consumed and not brought to ultimate discharge point.

1. Report water discharged to public utility sewer systems, whether municipally or privately owned.

2. — Self-explanatory

3. Include seepage into ground from your holding ponds, lagoons, etc. (Note — If water is transferred to an agricultural establishment for spray irrigation, report such quantity on line 4).

4. Include transfers, after your own use, to another establishment of either your company or another company.

Item VII — WATER TREATED BY METHOD OF TREATMENT

Where requested report total quantity of water treated for —
- Control of biological growth.
- Removal of suspended or dissolved solids.
- Corrosion control.
- Any other purpose by simple or complex methods.

Your remarks would be appreciated:

ITEM I WATER INTAKE BY KIND AND SOURCE 1972			
	Name or Location	Imperial Gallons for the Year	CODE
1. Public (municipal) water system	150 Name		120
2. Company surface water system, such as streams or lakes	570 Name		130
3. Company ground water systems, such as wells	172 Location Sec.Twp.Rge.Mer.		140
4. TOTAL *(Sum of lines 1 through 3)*			460

ITEM II WATER INTAKE BY PURPOSE 1972		
1. Process		220
2. Cooling and Condensing — For steam electric power generation		228
3 — For air-conditioning		238
4. — For other cooling and condensing		246
5 Boiler makeup		254
6. Sanitary service and other uses		262
7. TOTAL *(Sum of lines 1 through 6 should equal item 1 line 4)*		270

ITEM III WATER RECIRCULATED OR REUSED BY PURPOSE 1972			
1. Was any water recirculated or reused? ☐ No	If "No" mark "No" and skip to item IV.	☐ Yes	170
2. Process			820
3. Cooling and Condensing — For steam electric power generation			828
4. — For air-conditioning			838
5. — For other cooling and condensing			846
6. Boiler makeup			854
7. Sanitary service and other uses			862
8. TOTAL *(Sum of lines 2 through 7)*			870

ITEM IV WATER DISCHARGED BY POINT OF DISCHARGE 1972			
1 Public (municipal) utility sewer			520
2. Surface water body, such as stream, lake, etc.	560 Name		530
3. Ground (wells, spray, seepage, etc.)			540
4. Transferred to other users for reuse			550
5. TOTAL *(Sum of lines 1 through 4)*			760

ITEM V MONTHLY TOTALS 1972								
	Imperial Gallons for each month							
	January	CODE	February	CODE	March	CODE	April	CODE
1. Water Intake		320		325		330		335
2. Water discharged		620		625		630		635
	May		June		July		August	
1. Water Intake		340		345		350		355
2. Water discharged		640		645		650		655
	September		October		November		December	
1. Water Intake		360		365		370		375
2. Water discharged		660		665		670		675

Please continue on page 4

ITEM VI YEARLY TOTALS 1968 TO 1971

	Imperial Gallons for each year							
	1968		1969		1970		1971	
1. Water Intake		420		430		440		450
2. Water discharged		720		730		740		750

ITEM VII WATER TREATED BY METHOD OF TREATMENT 1972

A. INTAKEWATER

Intake water (included in item I) treated prior to use.
Exclude water treated only by chlorination.

1. *(Mark one)* 161 ☐ None treated ☐ Some treated

2. If some water was treated, enter quantity treated (gallons). 162 920 ☐

3. Report quantities treated by method of treatment.[1]

Method of treatment	Imperial Gallons for the year	163
Aeration		928
Coagulation		932
Filtration		938
Softening		944
Ion exchange		950
Corrosion control		956
pH		962
Settling		968
Other *(Specify)*		974

B WATER RECIRCULATED

Water (included in item III) treated prior to recirculation or reuse.

1. *(Mark one)* 164 ☐ None treated ☐ Some treated

2. If some water was treated, enter quantity treated (gallons). 165 1020 ☐

3. Report quantities treated by method of treatment.[2] If quantities are unknown circle the method(s) of treatment only.

Method of treatment	Imperial Gallons for the year	166
Aeration		1026
Coagulation		1032
Filtration		1038
Softening		1044
Ion exchange		1050
Corrosion control		1056
pH		1062
Settling		1068
Flotation		1074
Other *(Specify)*		1120

C WATER DISCHARGED

Water (included in item IV) treated prior to discharge.

1. *(Mark one)* 167 ☐ None treated ☐ Some treated

2. If some water was treated, enter quantity treated (gallons). 168 1126 ☐

3. Report quantities treated by method of treatment.[3]

Method of treatment	Imperial Gallons for the year	169
Coagulation		1132
Primary settling		1138
Secondary settling		1144
Trickling filters		1150
Activated sludge		1156
Digestion (waste water, sludges etc.)		1162
Ponds or lagoons		1168
pH		1174
Sand filtration		1220
Chlorination		1226
Flotation		1232
Other *(Specify)*		1238

Footnotes:

1 When more than one method of treatment is reported, the sum of the quantities reported may add to more than the quantity reported in Item VII A2
2 When more than one method of treatment is reported, the sum of the quantities reported may add to more than the quantity reported in Item VII B2
3 When more than one method of treatment is reported, the sum of the quantities reported may add to more than the quantity reported in Item VII C2

Printed by the QUEEN'S PRINTER for the
Province of Alberta, Edmonton

APPENDIX II

STANDARD INDUSTRIAL CLASSIFICATION CODE

IND.
NO.

DIVISION 4 - MINES (INCLUDING MILLING), QUARRIES AND OIL WELLS

Major Group 1 - Metal Mines

051 Placer Gold Mines
052 Gold Quartz Mines
057 Uranium Mines
058 Iron Mines
059 Miscellaneous Metal Mines

Major Group 2 - Mineral Fuels

061 Coal Mines
064 Crude Petroleum and Natural Gas Industry

Major Group 3 - Non-Metal Mines (except Coal Mines)

071 Asbestos Mines
072 Peat Extraction
073 Gypsum Mines
079 Miscellaneous Non-Metal Mines

Major Group 4 - Quarries and Sand Pits

083 Stone Quarries
087 Sand Pits or Quarries

Major Group 5 - Services Incidental to Mining

096 Contract Drilling for Petroleum
098 Other Contract Drilling
099 Miscellaneous Services Incidental to Mining

DIVISION 5 - MANUFACTURING INDUSTRIES

Major Group 1 - Food and Beverage Industries

101 Meat and Poultry Products Industries
102 Fish Products Industry
103 Fruit and Vegetable Processing Industries
104 Dairy Products Industry
105 Flour and Breakfast Cereal Products Industry
106 Feed Industry
107 Bakery Products Industries
108 Miscellaneous Food Industries
109 Beverage Industries

Major Group 2 - Tobacco Products Industries

151 Leaf Tobacco Processors
153 Tobacco Products Manufacturers

DIVISION 5 - MANUFACTURING INDUSTRIES (CONTINUED)

IND. NO.	
	Major Group 3 - Rubber and Plastics Products Industries
162	Rubber Products Industries
165	Plastics Fabricating Industry, n.e.s.
	Major Group 4 - Leather Industries
172	Leather Tanneries
174	Shoe Factories
175	Leather Glove Factories
179	Luggage, Handbag and Small Leather Goods Manufacturers
	Major Group 5 - Textile Industries
181	Cotton Yarn and Cloth Mills
182	Wool Yarn and Cloth Mills
183	Man-made Fibre, Yarn and Cloth Mills
184	Cordage and Twine Industry
185	Felt and Fibre Processing Mills
186	Carpet, Mat and Rug Industry
187	Canvas Products, and Cotton and Jute Bags Industries
188	Automobile Fabric Accessories Industry
189	Miscellaneous Textile Industries
	Major Group 6 - Knitting Mills
231	Hosiery Mills
239	Knitting Mills (except Hosiery Mills)
	Major Group 7 - Clothing Industries
243	Men's Clothing Industries
244	Women's Clothing Industries
245	Children's Clothing Industry
246	Fur Goods Industry
248	Foundation Garmet Industry
249	Miscellaneous Clothing Industries
	Major Group 8 - Wood Industries
251	Sawmills, Planing Mills and Shingle Mills
252	Veneer and Plywood Mills
254	Sash, Door and Other Millwork Plants
256	Wooden Box Factories
258	Coffin and Casket Industry
259	Miscellaneous Wood Industries
	Major Group 9 - Furniture and Fixture Industries
261	Household Furniture Manufacturers
264	Office Furniture Manufacturers
266	Miscellaneous Furniture and Fixtures Manufacturers
268	Electric Lamp and Shade Manufacturers

DIVISION 5 - MANUFACTURING INDUSTRIES (CONTINUED)

IND. NO.	
	Major Group 10 - Paper and Allied Industries
271	Pulp and Paper Mills
272	Asphalt Roofing Manufacturers
273	Paper Box and Bag Manufacturers
274	Miscellaneous Paper Converters
	Major Group 11 - Printing, Publishing and Allied Industries
286	Commercial Printing
287	Platemaking, Typesetting and Trade Bindery Industry
288	Publishing Only
289	Publishing and Printing
	Major Group 12 - Primary Metal Industries
291	Iron and Steel Mills
292	Steel Pipe and Tube Mills
294	Iron Foundries
295	Smelting and Refining
296	Aluminum Rolling, Casting and Extruding
297	Copper and Copper Alloy Rolling, Casting and Extruding
298	Metal Rolling, Casting and Extruding, n.e.s.
	Major Group 13 - Metal Fabricating Industries (except Machinery and Transportation Equipment Industries)
301	Boiler and Plate Works
302	Fabricated Structural Metal Industry
303	Ornamental and Architectural Metal Industry
304	Metal Stamping, Pressing and Coating Industry
305	Wire and Wire Products Manufacturers
306	Hardware, Tool and Cutlery Manufacturers
307	Heating Equipment Manufacturers
308	Machine Shops
309	Miscellaneous Metal Fabricating Industries
	Major Group 14 - Machinery Industries (except Electrical Machinery)
311	Agricultural Implement Industry
315	Miscellaneous Machinery and Equipment Manufacturers
316	Commercial Refrigeration and Air Conditioning Equipment Manufacturers
318	Office and Store Machinery Manufacturers

DIVISION 5 - MANUFACTURING INDUSTRIES (CONTINUED)

IND. NO.	
	Major Group 15 - Transportation Equipment Industries
321	Aircraft and Aircraft Parts Manufacturers
323	Motor Vehicle Manufacturers
324	Truck Body and Trailer Manufacturers
325	Motor Vehicle Parts and Accessories Manufacturers
326	Railroad Rolling Stock Industry
327	Shipbuilding and Repair
328	Boatbuilding and Repair
329	Miscellaneous Vehicle Manufacturers
	Major Group 16 - Electrical Products Industries
331	Manufacturers of Small Electrical Appliances
332	Manufacturers of Major Appliances (Electric and Non-Electric)
333	Manufacturers of Lighting Fixtures
334	Manufacturers of Household Radio and Television Receivers
335	Communications Equipment Manufacturers
336	Manufacturers of Electrical Industrial Equipment
338	Manufacturers of Electric Wire and Cable
339	Manufacturers of Miscellaneous Electrical Products
	Major Group 17 - Non-Metallic Mineral Products Industries
351	Clay Products Manufacturers
352	Cement Manufacturers
353	Stone Products Manufacturers
354	Concrete Products Manufacturers
355	Ready-Mix Concrete Manufacturers
356	Glass and Glass Products Manufacturers
357	Abrasives Manufacturers
358	Lime Manufacturers
359	Miscellaneous Non-Metallic Mineral Products Industries
	Major Group 18 - Petroleum and Coal Products Industries
365	Petroleum Refineries
369	Miscellaneous Petroleum and Coal Products Industries
	Major Group 19 - Chemical and Chemical Products Industries
372	Manufacturers of Mixed Fertilizers
373	Manufacturers of Plastics and Synthetic Resins
374	Manufacturers of Pharmaceuticals and Medicines
375	Paint and Varnish Manufacturers
376	Manufacturers of Soap and Cleaning Compounds
377	Manufacturers of Toilet Preparations
378	Manufacturers of Industrial Chemicals
379	Miscellaneous Chemical Industries
	Major Group 20 - Miscellaneous Manufacturing Industries
391	Scientific and Professional Equipment Industries
392	Jewellery and Silverware Industry
393	Sporting Goods and Toy Industries
397	Signs and Displays Industry
399	Miscellaneous Manufacturing Industries, n.e.s.

DIVISION 6 - CONSTRUCTION INDUSTRY

IND. NO.	
	Major Group 1 - General Contractors
404	Building Construction
406	Highway, Bridge and Street Construction
409	Other Construction
	Major Group 2 - Special-Trade Contractors
421	Special-Trade Contractors

DIVISION 7 - TRANSPORTATION, COMMUNICATION AND OTHER UTILITIES

	Major Group 1 - Transportation
501	Air Transport
502	Services Incidental to Air Transport
503	Railway Transport
504	Water Transport
505	Services Incidental to Water Transport
506	Moving and Storage, Used Goods, Uncrated
507	Other Truck Transport
508	Bus Transport, Interurban and Rural
509	Urban Transit Systems
512	Taxicab Operations
515	Pipeline Transport
516	Highway and Bridge Maintenance
517	Miscellaneous Services Incidental to Transport
519	Other Transportation
	Major Group 2 - Storage
524	Grain Elevators
527	Other Storage and Warehousing
	Major Group 3 - Communication
543	Radio and Television Broadcasting
544	Telephone Systems
545	Telegraph and Cable Systems
548	Post Office
	Major Group 4 - Electric Power, Gas and Water Utilities
572	Electric Power
574	Gas Distribution
576	Water Systems
579	Other Utilities